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SCIENTIFIC INFORMATION REPORT

CHINESE SCIENCE

(45)

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SCIENTIFIC INFORMATION REPORT

Chinese Science (45)

This serial report contains unevaluated information prepared as abstracts, extracts, summaries and translations from recent publications of the Sino-Soviet Bloc. Individual items are unclassified unless otherwise indicated.

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ABSTRACTS

Biological Sciences

LI Pao-chien (2621/1405/0256)

"Cytochemical Investigation of Microsporogenesis and Microgametogenesis of Certain Aniospermae"

Peiping, Chih-wu Hsueh-pao (Acta Botanica Sinica), Vol 11, No 4, Dec 63, pp 283-288

Translation of Russian Abstract: Various cytochemical methods are used to study the dynamics of nucleic acids, proteins, and certain other substances in the cells of Allium cepa L. Lilium usitatissum L. and Cannabis sativa L. during microsporogenesis and microgametogenesis. It was discovered that modification in the exchange of nucleic acids and proteins in these cells is one of the indications of the emergence of archespore cells from the meristematic cells of the stem. Further, the synthesis and the accumulation of a large amount of RNA and proteins in the archespore cells are one of the most important physiological conditions for the onset of meiosis. Many life force substances of RNA, proteins, ferments, etc. accumulate in pollen mother cells and in pollens during

(Continued)
the process of microsporogenesis and microgametogenesis. In addition, the entry into these cells of complex organic substances of RNA, proteins, etc. is evidently also important for successful completion of these processes in cell development. Tapetum cells play an important role in this respect.

This paper was received for publication on 27 August 1963.

Author's Affiliation: Chung-shan University.

WU Su-hsuan (0702/4790/5503)

TS'AI Ch'i-kuei (5591/6386/6311)

"Cytological Studies on the Intergeneric F_1 Hybrid Between Oryza Sativa L. x Pennisetum Sp."

Peiping, Chih-wu Hsueh-pao (Acta Botanica Sinica), Vol 11, No 4, Dec 63, pp 293-300

Excerpts of English Abstract: The F_1 hybrid plant between Oryza sativa L. and Pennisetum sp. was obtained by Teng Yen Tang in 1958. In many morphological characters the hybrid appears to be superior to the parental plants, such as the culms are taller, the leaves are comparatively longer and broader, and the spikes are apparently much larger. However, the form of the spikes of the hybrid plant is a spreading type which resembles that of the mother plant. In general, the hybrid plant bears a close resemblance to the female parent, though its spikelets produce conspicuous long awns which must be inherited from the pollen plant. The F_1 hybrid is almost completely sterile for it only occasionally produces one or two grains in open condition. Owing to the high regenerating feature, the hybrid plant has been successfully cultivated by begetative propagation. Other descriptive data are given.

(Continued)
CHAO Ching (6392/0079) assisted in making the slides.

This paper was received for publication on 8 October 1963.

Authors' Affiliation: Both of Institute of Botany, Chinese Academy of Sciences.

YU Ch'eng-hung (0827/6134/7703)

CHANG Ju-wei (1728/3067/3555)

"A Quantitative Investigation on the Arrangement of the Mechanical Tissue in Bamboo Culm"

Peiping, Chih-wu Hsueh-pao (Acta Botanica Sinica), Vol 11, no 4, Dec 63, pp 308-316

Excerpts of English Abstract: The present paper contributes a knowledge of the quantitative arrangement of the mechanical tissue in the culm of Phyllostachys pubescens Mazel. Materials are taken from the middle portion of the selected internodes of 12 culm-specimens collected from Hunan Province. All are 4 years of age and 4-14 cm. in D. B. H.

This paper was received for publication on 26 April 1963.

Authors' Affiliation: Yu of South China Institute of Botany, Chinese Academy of Sciences; CHANG of Institute of Botany, Chinese Academy of Sciences.

HO Neng-yuan (0149/1322/0337)

"Embryological Investigation of Soy Glycine Soja (L.) Sieb. et Zucc.: I. Development of the Seed-bud and the Endosperm"

Peiping, Chih-wu Hsueh-pao (Acta Botanica Sinica), Vol 11, No 4, Dec 63, pp 318-323

Excerpts of Russian Abstract: The author of this paper investigates the process of the development of the seed-bud and endosperm of soy ("feng-ti-huang" sort). The development of the soy seed-bud belongs to the type Cruciferae (Onagraceae). Typical representatives of this type have a suspensor which consists of a single row of cells. The soy suspensor is composed of many rows of cells. The author observed the process of cell vacuolation and the subsequent disappearance of the vacuoles. This paper also discusses the rate of seed-bud development. The development of the endosperm belongs to the nuclear type. The author did not observe any sign of amitosis in his study of endo-sperm development. However, he does not asert that this phenomenon does not occur, since the materials in this paper were recorded over comparatively large time intervals.

YU Kuei-lan (0060/2710/5695), CHING Te-chang (2529/1795/4545), KAO Ming-hsin (7559/2494/0207), LIU Keng-ch'ang (0491/1649/7022),

(Continued)
LI Hsiao-jung (2621/1321/2837), LIU Chi-ch'un (0491/4949/4783) and CHANG Su-p'eng (1728/4790/7720) assisted in making the slides and in handling materials.

This paper was received for publication on 27 August 1963.

Author's Affiliation: Department of Biology, Kirin Normal University.

LI Ning-ch'i (2621/2494/0796)

YEN Chun-ling (0917/0689/7227)

"A Study of Polyphenol Oxidase in Litchi Pericarp"

Peiping, Chih-wu Hsueh-pao (Acta Botanica Sinica), Vol 11, No 4, Dec 63, pp 329-336

Excerpts of English Abstract: Litchi is a famous fruit indigenous to South China. When the fruit is fully ripe, it is beautifully bright red, but the color fades rapidly and turns dull brown a few days after being kept at room temperature. To find out what active agent is responsible for the rapid browning of the fruit, a study was made of the oxidizing enzymes present in the fruit shell. Crude enzyme preparation was made by grinding fruit shells with water or with phosphate-citric acid buffer (pH 6.8) and then filtering. Enzyme activity was measured by manometric method with the Warburg apparatus. The results are given.

Prof T'ANG P'ei-sung (3282/0160/2646) directed the research; he and Professors HSU Peng-ch'eng (6079/7720/4453) and LIU Ts'ui-chieh (0491/5488/2638) read the manuscript.

This paper was received for publication on 20 July 1963.

Authors' Affiliation: Both of the South China College of Agriculture.

HSIA Chen-ao (1115/6966/3421)
WAN Hsin-shan (1354/2450/2619)
WANG Fu-te (3769/6534/1795)

"The Effect of Temperature on the Physiological Changes of Wheat During Grain Development"

Peiping, Chih-wu Hsueh-pao (Acta Botanica Sinica), Vol 11, No 4, Dec 63, pp 338-347

Excerpts of English Abstract: Experiments were made to study the physiological changes of wheat plants during grain development in different temperatures. The results obtained are summarized. Such aspects as the following were observed. When wheat plants were cultured at the same day temperature (25°C) from flowering to ripening, the period of grain-filling was prolonged for 10 days by low night temperature treatment.

YIN Hung-chang (3009/1347/4545), deputy director of the Institute of Plant Physiology, Chinese Academy of Sciences, and T'ANG Yu-wei (2382/3768/3837) read the manuscripts; YU Tzu-wen (0205/1311/2429) assisted with the work.

The paper was received for publication on 5 September 1963.

Authors' Affiliation: All of the Institute of Plant Physiology Chinese Academy of Sciences.

YU Shu-wen (0151/0647/2429)
WANG Huai-chih (3769/2037/2535)
KUNG Ts'an-hsia (7895/3605/7209)
SUNG T'ing-sheng (1345/1694/3932)
CH'IEN Jen (6929/0088)

"Effect of Food Materials Supply on the Development of Wheat Grains and Interrelationship of Main Stem and Tiller in Wheats"

Peiping, Chih-wu Hsueh-pao (Acta Botanica Sinica), Vol 11, No 4, Dec 63, pp 350-357

Text of English Abstract: The removal of ear from the main stem of the tiller of wheat plant at earing stage induces its assimilate to go to the ear of another stalk on the same plant, so that the latter is nourished supplementarily. By this method, an investigation on the effect of food materials supply on the weight of grains was carried out.

Even at favorable ripening condition, to enrich the supply of food materials to the developing ear results in a considerable increase of the weight of wheat grains. This result does not agree with the conclusion of Tumanov. The mean 1,000-grain weight of the tested wheat variety "Nang-dae 2419" increased to 59.8 g., a record about 50% heavier than its normal level (40 g.).

(Continuation of Chih-wu Hsueh-pao, Vol 11, No 4, pp 350-357

The differences of the average weight of grains between upper and middle and lowr parts of the ear are not due entirely to the insufficient supply of food materials.

There is little or no movement of assimilates from earbearing tiller to main stem or vice versa after earing stage. Under conditions of ear removal or severe defoliation of either main stem or tiller, net translocation takes place from the stalk of high to low carbohydrate production. This indicates that there exists a readjusting mechanism of translocation between stalks on the same wheat plant.

LO Tsung-lo (5012/1350/3157), director of the Institute of Plant Physiology, Chinese Academy of Sciences; CH'EN Chung-kang (3088/0339/6921); and WANG T'ien-to (3769/1131/6995) read the manuscript and proposed many invaluable views.

This paper was received for publication on 29 September 1963.

Author's Affiliation: All of the Institute of Plant Physiology, Chinese Academy of Sciences.

TAI Yun-ling (2071/0061/3781)
LIANG Yin-ch'u (2733/1377/0443)
TSOU Yu-p'ing (6760/0827/5393)
T'ANG P'ei-sung (3282/0160/2646)

"Studies on Plant Respiration: V. Oxidative Pathways in Subcellular Particles Prepared From Etiolated Rice Seedlings"

Peiping, Chih-wu Hsueh-pao (Acta Botanica Sinica), Vol 11, No 4, Dec 63, pp 359-368

Excerpts of English Abstract: The pathways of pyruvate oxidation in subcellular particles (mitochondria) prepared from shoots of 4-day old etiolated rice seedlings were studied. The operation of the tricarboxylic acid (TCA) pathway was established and the results given.

CHAO Chih-ju (6392/4249/1172) and LI Yun-hui (2621/0061/6540) participated in the work; TUAN Hsu-ch'uan (3008/4958/1557), Cytology Laboratory, Institute of Botany, Chinese Academy of Sciences, and HSU Lin-ch'ing (1776/7207/1987), HUNG Wei-lien (3163/4850/1670), and CHIEN Ling-ch'eng (4675/0109/2052) assisted with morphological investigation work; FAN Jen-jui (3972/0088/3843), Institute of Microbiology, Chinese Academy of Sciences, assisted with microbiological observations.

(Continued)
This paper was received for publication on 7 October 1963.

Authors' Affiliation: All of the Laboratory of Plant Physiology, Institute of Botany, Chinese Academy of Sciences.

YEN Lung-fei (7051/7893/7378)
WANG Fa-chu (3769/4099/3796)
KUAN K'ang-lin (4619/1660/2651)
T'ANG P'ei-sung (3282/0160/2646)

"Studies on Plant Respiration: VI. The Utilization of Acetate in Rice Seedlings"

Peiping, Chih-wu Hsueh-pao (Acta Botanica Sinica), Vol 11, No 4, Dec 63, pp 370-377

Excerpts of English Abstract: (2-c^{14})-acetate was fed to etiolated rice seedlings, and the respiratory pathways of the acetate in them were studied. The results obtained from feeding experiments are given.

CHAO Fu-hung (6392/4395/3163) assisted with the work.

This paper was received for publication on 7 Octover 1963.

Authors' Affiliation: All of the Laboratory of Plant Physiology, Institute of Botany, Chinese Academy of Sciences.

CHENG Kuo-chang (6774/0948/4545)
CHU I-t'ao (2612/4135/7118)
CHENG Jui-chen (6774/3843/3791)

"Studies on the Lipofuscin in the Nerve Cells of the Rhesus Monkey"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 4, Dec 63, pp 491-497

Excerpts of English Abstract: The selected parts of the nervous system of the rhesus monkeys, which were divided into four age groups estimated according to their dental status, were used. The amount and distribution of lipofuscin, which appeared to be different in different kinds of the nerve cells, were studied.

The Institute of Medical Biology, Chinese Academy of Medical Sciences, furnished materials.

This paper was received for publication on 9 April 1963.

Authors' Affiliation: All of the Institute of Zoology, Chinese Academy of Sciences.

SUN Chen-chung (1327/2182/0022)

"Comparative Anatomy of the Nervous System of Cipangopaludina Chinensis (Gray) at Three Developmental Stages"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 4, Dec 63, pp 499-510

Excerpts of English Abstract: From morphological and ontogenetic points of view, an attempt was made to investigate the complex organization of the nervous system in Cipangopaludina chinensis. Specimens of three developmental stages were selected for investigation: (1) 2-whorled larvae, (2) 3-4 whorled larvae, and (3) 6-7 whorled adults. They resemble one another structurally, not only in typical gastropod nerve ring with its arising buccal loop, but also in the chiastoneury with its forming visceral loop and in the podal ladder with its anastomosis. There are, however, differences noted in detailed features. In the 6-7 whorled adult, 15 peripheral nerves arise from the left and right abdomino-intestinal connectives, respectively; they are better developed than in the younger ones, but the region in which the osphradial nerves distributed is more expensive in 2-whorled larva than in adults.

(Continuation of Tung-wu Hsueh-pao, Vol 15, No 4, pp 499-510)
The distributions of the principal nerves in the 6-7 whorled specimens have been traced in detail, and descriptions presented in the paper are new records for Cipangopaludina chinensis.

PING Nung-shan (4426/6593/1472) directed the research.

This paper was received for publication on 6 May 1963.

Author's Affiliation: Kiangsi Provincial Institute of Parasitic Diseases.

CHANG Shih-jung (1728/0013/2837)

"A Preliminary Sutdy of the Heterotopic Thyroid Follicles in the Carp (Cyprinus Carpio)"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 4, Dec 63, pp 522-526

Excerpts of English Abstract: Follicles, regardless of where they are located, are identical both morphologically and historlogically. The follicular cells are generally flat and basophilic. These cells average 4-5μ in height. The lumen of the follicles is filled with eosinophilic colloid. Vaculoes are often found in the peripheral region of the colloid. Autoradiographic studies with isotopic I^{131} show a similar intensity of silver grains in follicles from all the organs studied in the present investigation. However, the rate of radioactive iodine uptake was found to be faster in the follicles of the throat region than in those of the other organs of the body.

Prof PING Chih (4426/1807) directed the research; CHANG Chih-i (1728/5628/0001) made corrections.

This paper was received for publication on 10 April 1963.
Authors' Affiliation: Institute of Zoology, Chinese Academy of Sciences.

CHIA Hsiang-kang (6328/4161/0474)
PEI T'ien-hsiang (6296/1131/4382)
CH'EN T'ai-yung (7115/1132/1661)
CHENG TsiOhsin (6774/0155/2450)

"Preliminary Studies on the Breeding Behavior of the Tree-Sparrow (Passer Montanus Saturatus)"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 4, Dec 63, pp 527-535

Excerpts of English Abstract: Observations were made on the breeding behavior of the Tree-Sparrow at Nanyuan, in the suburbs of Peking, as well as in Ch'ang-li Hsien, Hopeh Province, during the spring and summer of 1955-1957 and 1960. The studies on breeding havits included population densities and food consumption by the young. Of the food consumed, 91.43 percent was insects: 56.18 percent was pests to agriculture, 33.14 percent was beneficial species, and 2.11 percent was without any economic significance.

This paper was received for publication on 4 June 1963.

Authors' Affiliation: All of the Institute of Zoology, Chinese Academy of Sciences.

HSIA Wu-p'ing (1115/2976/1627)
CHU Sheng-k'an (2612/4141/0170)

"A Supplementary Study on the Changing Tendencies of the Rodent Population in the Recent Cut-Over Land at Tai-lings, Norteast China"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 4, Dec 63, pp 537-543

Excerpts of English Abstract: On the basis of our former work (Hsia, 1958), the changing tendencies of rodent population in the recent cut-over land were again studied during 1958-1960. New material indicated that the dominant species, Apodemus speciosus and Clethrionomys rutilus, showed a tendency to decrease in number after logging, but the density of C. rufocanus in the cut-over land was higher than that in the forest. In comparing the population densities of these rodents in the lands, of which the forests were cut in different years, it was found their population densities were decreased gradually.

With respect to the changes of the rodent community during the 7 years after logging, Apodemus speciosus and Clethrionomys rutilus decreased in the percentage composition at first, but began to recover at the fifth

year after logging. A speciosus recoverd more slowly than C. rutilus. On the contrary, C. rufocanus increased suddenly in the percentage composition after the cutting of the forest and did not decrease until the fifth year after logging.

SHOU Chen-huang (1108/2182/7806) directed the research; LI Chia-ch'eng (2621/1367/2052), LI Wen-yu (2621/2429/3768), LIU Kuo-liang (0491/0948/5328), T'ANG Pao-ch'en (0781/1405/2525), and CHAO Chien-hua (6392/1696/5476) participated in the field work; and the Tai-ling Work Station, Institute of Forestry and Pedology, Chinese Academy of Sciences, rendered support.

This paper was received for publication on 22 March 1963.

Authors' Affiliation: Both of the Institute of Zoology, Chinese Academy of Sciences.

1472
HSU Wei-nan (1776/0035/0589)

"Studies on Some Parasitic Nematodes of Order Spirurida Chitwood, 1933"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 4, Dec 63, pp 544-549

Excerpts of English Abstract: In the present paper, 4 species of parasitic nematodes belonging to 4 genera and 3 families are presented; among them 2 species are found to be new to science. The diagnoses of the 2 new species, Acuaria cettiae sp. nov. and Serratospiculum kwangsiensis sp. nov., are given.

Prof CH'EN Hsin-t'ao (7115/1800/7118) offered invaluable views; WU Wei-sheng (0125/1920/3932) donated Kwangsi specimens.

This paper was received for publication on 10 December 1962.

Author's Affiliation: Nanking University

WU Pao-hua (0702/1405/5478)

"Parasitofauna of Fish in the T'ang-ch'ih Waters of Hangchow Region: 2. A New Species and Certain Other Species From the Subfamily Ancyrocephalinae of Monogenetic Trematodes"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 4, Dec 63, pp 553-558

Excerpts of Russian Abstract: This paper is a study of the 1960-1961 research on Parasitofauna of fish in the basin of the Don-t'i Canal in the city of Hangchow. A total of 17 species of commercial fish amounting to 238 specimens was inspected. A complete parasitological analysis was made with respect to each group of parasites. The author treated the material on the composition of fauna of monogetic trematodes in the basin of Don-t'i Canal under the topic "Study on Monogenetic Trematodes," which will be published. This paper describes four species of monogenetic trematodes from the subfamily Ancyrocephalinae. One of these is described as a new type. The paper also describes two other species.

This paper was received for publication on 17 November 1962.

Author's Affiliation: Department of Biology, Hangchow University.

LIANG Yen-ling (2733/1750/7881)

"Studies on the Aquatic Oligochaeta of China: I. Descriptions of New Naids and Branchiobdellids"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 4, Dec 63, pp 560-567

Excerpts of English Abstract: The present paper embodies the descriptions of 4 interesting fresh-water oligochaete worms, including one new species, Nais inflata, one new subspecies, Pristina amphibiotica changtuensis, of Naididae, and 2 new species, Caridiophila unidens and Stephanodrilus truncatus, (of which one belongs to a new genus) of Branchiobdellidae. Both worms of the latter family were obtained from fresh-water shrimps. As far as is known, were found to be parasitic on crayfishes only. The occurrence of these worms on the shrimp appears to be on record for the first time. The type specimens of these new species and subspecies are deposited in the Institute of Hydrobiology, Chinese Academy of Sciences.

CH'EN Chia-yu (7115/0857/0147) and WANG Shih-ta (3769/1101/6671) collected specimens; CHANG Kuo-hsing (1728/0948/7451) determined the scientific names.

This paper was received for publication on 23 April 1963.
Author's Affiliation: Institute of Hydrobiology, Chinese Academy of Sciences.

CH'EN Chia-jui (3088-0857/3843)
LI Fu-hsiang (2621/5412/7449)

"The Estuarine Copepoda of Chien-chiang and Chan-chiang Rivers, Kwangtung Province, China"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 4, Dec 63, pp 571-592

Excerpts of English Abstract: This paper is based upon the material collected at the stations A, B, and C at the mouth of the Chien-chiang River and at Station D off the mouth of the Chan-chiang River (both of which are situated in the northern part of Luichow Peninsula, Kwangtung Province) in every month throughout the year, from April 1961 to March 1962, by members of the Planktology Section, South China Sea Branch, Institute of Oceanography, Chinese Academy of Sciences, and put at our disposal for studies. As a result, 27 species have been identified; they belong to the Order Calanoida, except for the two species of Cyclopoida. Among the Calanoida, 8 species are found to be new to science and 6 are recorded for the first from China. A comparison of the two estuarine faunas indicates that there was a greater admixture of the etuarine and true marine forms in Chan-chiang than in Chien-chiang River estuaries. All the species are enumerated and diagnosed. Types of the new species are deposited in the Institute of Zoology, Chinese Academy of Sciences, Peiping.

(continued)
HSIEH Chih-ming (2600/3112/2494), YANG Jui-ch'iung (2799/3843/8825), YANG Jung-kuei (2799/2837/6311), and Ch'en Mao-lie (7115/5399/4389) assisted with field investigations; TAI Ai-yun (2071/1947/0061), SUNG Ta-hsiang (1345/1129/4382), and CH'EN Shou-chung (7115/0649/1813) did research; FENG Chung-ch'i (7485/6945/4388) did the ink drawings; and LIU Yin-tseng (0491/5593/1073) prepared the plates.

This paper was received for publication on 6 February 1963.

Authors' Affiliation: CH'EN of Institute of Zoology, Chinese Academy of Sciences; LI of South China Sea Branch, Institute of Oceangraphy Chinese Academy of Sciences.

CH'EN Hsin-t'ao (7115/1800/7118)
HSU Ping-k'un (1776/4426/6924)

"Trombiculid Mites Infesting Bats in Kwangtung Province"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 4, Dec 63, pp 597-604

Excerpts of English Abstract: Nine species of chiggers infesting bats (Pipistrellus pipistrellus, Hipposideros poutensis, H. armiger, and an undetermined species) collected at Canton, Ch'u-chiang, and Hai-k'ang, Kwangtung Province, are reported in this paper, of which three are considered as new to science: (1) Whartonia recurvata Chen and Hsu, 1959, from two species of bats (P. pipistrellus, H. poutensis) collected at Ch'u-chiang; (2) W. mapaensis Chen and Hsu, 1959, from H. poutensis collected at Ch'u-chiang; (3) Euschongastia indica (Hirst, 1915) and (4) Trombicula akamushi var. deliensis Walch, 1923, from P. pipistrellus collected at Canton; (5) Trombicula (Leptotrombidium)pipistrella sp. nov.;

(continued)
(6) Trombicula (Trombicula) kukongensis sp. nov.; (7) Trombicula (Trombicula) tsachiensis sp. nov.; (8) Tragerdhula koomori (Sasa and Jameson, 1954), from the wings of P. Pipistrellus, collected at Ch'u-chiang, Kwangtung; and (9) Trombicula (Trombicula) dimolinae Audy, 1952, from a bat, collected at Hai-k'ang, Kwangtung.

HSU Huan-jen (1776/3562/0334) assisted with the drawings.

Authors' Affiliation: Both of the Parasitology Teaching and Research Section, Chung-shan Medical College, Canton.

HSIUNG Kuang-hua (3574/0342/5478)
WANG Chieh (3769/2212)
HU Yung-te (5170/3057/1795)
LIU P'i-tsung (0491/0012/1350)

"Experimental Infection of P. Alexandri and P. Mongolensis With Leishmania Donovani"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 4, Dec 63, pp 607-610

Excerpts of English Abstract: There are two species of sandflies in Hei-shan-hu, Kansu Province, namely, P. alexandri and P. mongolensis. In the present paper, a report is made of the feeding experiments on kalaazar -- infected Cricetulus barabensis with these two species of sandflies. The results indicated that P. alexandri is a favorable host for the development of L. donovani, while P. mongolensis is not. The former may play an important role in the transmission of kala-azar locally whenever infected human cases occur.

(continued)
Prof FENG Lan-chou (7458/5695/3166) directed the research.

This paper was received for publication on 26 March 1963.

Authors' Affiliation: All of the Kansu Provincial Institute of Medical Sciences, Lanchow.

HSIAO Ts'ai-yu (5618/6846/3842)

"New Coreidae (Hemiptera, Heteroptera) From China"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 4, Dec 63, pp 611-620

Excerpts of English Abstract: The present paper deals with 13 genera and 14 species of coreid bugs collected from the various parts of China. Among them 3 genera and 10 species are described as new to science, and 4 species are recorded for the first time from China.

Mictinae Stal is recognized as a good subfamily holding two Asiatic tribes, Mictini Stal and Derepterini, n., which are differentiated by the presence or absence of abdominal tubercles. A new tribe, Sinotagini, is proposed for Sinotagus Kiritshenko. Elasmomia Stal is synonymized with Ochrochira Stal; and Trematocoris Mayr, restored to its generic rank. Rhamnomia, n.g. is proposed for Prionolomia dubia Hsiao; and Petillocoris, n.g., for Mictis calcar Dallas and Trematocoris Patulicollis Walker. The new genera and new species are briefly diagnosed.

JEN Shu-chih (0117/2885/5347) did the drawings.

This paper was received for publication on 22 March 1963.

Author's Affiliation: Nankai University.

CHANG Ch'un-lin (1728/2504/7207)
YUEH Tso-ho (1471/0146/0735)
HUANG Hung-chin (7806/1347/6855)

"Notes on Fishes of the Genus Nemachilus of Southern Tibet, China, With Description of a New Species"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 4, Dec 63, pp 624-632

Excerpts of English Abstract: The present paper deals with the fishes of the genus Nemachilus collected from Southern Tibet in 1961. Althogether, six species are included, of which the Nemachilus bellibarus is found to be new to science. The six species are: (1) Nemachilus stoliczkae (Steindachner); (2) Nemachilus bellibarus, sp. nov.; (3) Nemachilus lhasae Regan; (4) Nemachilus stewarti (Hora); (5) Nemachilus strauchii (Kessler); and (6) Nemachilus tibetanus Regan.

Profs CHENG Tso-hsin and Ch'EN Chia-jui (3088/8057/3843) lent support; AO Jen-lan (2407/4771/5695) and WANG Shen-yu (3769/3947/5940) did the drawings.

This paper was received for publication on 18 December 1962.

Authors' Affiliation: CHANG, deceased, Institute of Zoology, Chinese Academy of Sciences; YUEH and HUANG, both of the Institute of Hydrobiology, Chinese Academy of Sciences.

CHANG Ch'un-lin (1728/2504/7207)
CHANG Yu-ling (1728/3768/3781)

"New Species of the Genus Cyprinocypris From Lake Chinghai"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 4, Dec 63, pp 635-637

Excerpts of Russian Abstract: Several specimen of fish were obtained from Lake Chinghai (Kukunor) in 1959, including two new species of the genus Gymnocypris. This paper contains a description of the two new species, Gymnocypris chinghainensis and Cymnocypris convexaventris.

WANG Wen-pang (3769/2429/3203) rendered enthusiastic support; AO Jen-lan (2407/4771/5694) did the drawings.

This paper was received for publication on 5 March 1963.

Authors' Affiliation: Both of the Institute of Zoology, Chinese Academy of Sciences; CHANG Ch'un-lin is deceased.

CHENG Tso-hsin (6774/0155/2450)

"Subspecific Differentiation of the Red-Winged Shrike-Babbler (Pteruthius Flaviscapis) in China, Including a New Subspecies P. F. Lingshuiensis"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 4, Dec 63, pp 639-644

Excerpts of English Abstract: Of the red-winged shrike-babbler _Pteruthius flaviscapis), there are so far recorded ten subspecies, of which three occur in China. This paper reports a new subspecies from Hainan, Pteruthius flaviscapis lingshuiensis, thus making a total of four subspecies found within the boundaries of the country.

Prof TING Han-po (0002/3352/3134), Fukien Normal College, and professors TANG Jui-ch'ang (0781/3843/2490) and T'ANG Chao-liang (0781/0340/0081), Department of Biology, Peking University, lent specimens.

This paper was received for publication on 2 July 1963.

Author's Affiliation: Institute of Zoology, Chinese Academy of Sciences.

CH'EN P'eng (7115/7720)

"Birds From the Ch'ang-pai-shan Ridges and Their Vertical Distribution"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 4, Dec 63, pp 648-664

Excerpts of Russian Abstract: In zoogegraphical terms, the fauna in the Ch'ang-pai-shan Ridge should be related to the Northeastern Palearctic region. A vertical investigation of birds on this ridge was conducted from May to August 1969 and from June to the end of August 1962. Of the 142 species of birds encountered, 110 species nest there. The Ch'ang-pai-shan mountain ridge may be divided into five zones. This paper describes the representatives of each mountain zone: broad-leaved forests (400-600 meters); mixed forests (600-1,200 meters); conifers (1,200-1,800 meters); birch (1,800-2,000 meters) and mountain tundra (2,000-2,740 meters).

(continued)
Prof FU T'ung-sheng (0265-2717-3932), Department of Biology, Kirin Normal University, KAO Hsiu (7559/1485) and HUANG Hsi-ch'ou (7806/6932/3985), Department of Geology, Kirin Normal University, and Prof CHENG Tso-hsin (6774/0155/2450), Institute of Zoology, Chinese Academy of Sciences, presented many invaluable views; LIN Shao-tsung (2651/4801/1350) and WENG Kuei-chih (3769/2710/5347) did the drawings.

Author's Affiliation: Department of Biology, Kirin Normal University.

LIU Ch'ung-lo (0491/1504/2867)
TS'AI Chien-p'ing (5591/0494/5493)
WANG Chin-yen (3769/6855/6056)
WANG Chin-ti (3769/6855/1717)

"Biological Studies of Bracon Greeni and Experimental Results of Host Allurement in the Forest"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 12, No 5-6, Nov 63, pp 523-536

Excerpts of English Abstract: Studies were made of the biologies of Eublemma amabilis, a lepidopterous predator of the lac insect, and of Bracon greeni, a hymenopterous parasite of the moth larva, and on the results of host allurement experiments.

This paper was received for publication on 24 April 1963.

Authors' Affiliation: LIU, TS'AI, and WANG Chin-yen, all of the Laboratory of Insect Resources, Institute of Zoology, Chinese Academy of Sciences; WANG Chin-ti, Institute of Lac Research, Chinese Academy of Forestry Science.

CHANG Tsung-ping (1728/1350/3521)
CHAING Yung-chia (1203/3057/0857)

"Studies on Insect Chemosterilants: III. Thip-TEPA As Chemosterilant for Armyworm Moth (Pseudaletia Separata Walker, Noctuidae)"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 12, No 5-6 Nov 63, pp 538-542

Excerpts of English Abstract: Thio-TEPA was tested as a chemosterilant to armyworm moth, Pseudaletia separata Walker. Used at 0.1% in 5% sugar syrup for 24 hours, it produced complete sterility, when both males and females were treated. The number of eggs laid was halved, but not of the eggs hatches. Treated females crossed with normal males laid almost a normal number of eggs, which did not hatch; but when treated males were crossed with normal females, a small percentage of the eggs laid did hatch and develop normally. Concentrations above 0.5% caused some adverse effects on the adult moths, and concentrations below 0.05% were much less effective.

The practical use of Thio-TEPA as a chemosterilant for armyworm moths as a control measures and as a preventive measure to study their migration and dispersion was discussed.

(continued)
The Bionomics Laboratory, Institute of Zoology, Chinese Academy of Sciences, furnished some of the insects.

This paper was received for publication on 19 March 1963.

Authors' Affiliation: Both of the Department of Biology, Peking University.

CHAI Ch'i-hui (5049/0796/1979)

"Studies on the Soluble Proteins of Philosamia Cynthia Ricini"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 12, No 5-6, Nov 63, pp 543-550

Excerpts of English Abstract: Qualitative analysis of the tissue extracts of Philosamia cynthia ricini showed that in all stages of development the soluble proteins contained albumins, globulins, and gelatin. In the beginning of the pupal stage, primary proteose and peptone were also detected in the tissue extract.

The following common amino acids were detected: cystine (and/or cysteine), lysine, histidine, arginine, serine, glycine, aspartic acid, glutamic acid, threonine, alanine, proline, tyrosine, valine (and/or methionine), phenylalanine, and leucine (and/or isoleucine). Tryptophan could not be found on the chromatograms due to decomposition in the process of acid hydrolysis.

The physiological singificance of the developmental and sexual differences in the contents of the soluble proteins was discussed.

(continued)
CH'IN Chun-te (2953/0193/1795) directed the work; CH'ENG Feng-hui (2110/7458/1979) contributed many valuable ideas; KU Ch'eng-chen (2653/2052/3791) and T'IEN Hsueh-wen (3944/1331/2429) assisted with nitrometric work.

This paper was received for publication on 21 March 1963.

Author's Affiliation: Institute of Zoology, Chinese Academy of Sciences.

HSIA Ts'eng-hsien (1115/2582/6897)
TS'AI Hsiao-ming (5591/2256/2494)
TENG Hsiao-shan (6772/1420/1472)

"Studies of the Regularity of Outbreak of the Oriental Armyworm, Leucania Separata Walker: II. Observations on Migratory Activity of the Moths Across the Chili Gulf and Yellow Sea of China"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 12, No 5-6, Nov 63, pp 552-563

Excerpts of English Abstract: The first paper of the present series of studies suggested that the armyworm moths, which appeared in early spring in northeastern China, were probably not from local areas but, rather, were from a great distance from the south, along with the prevailing trade wind. It follows, therefore, that the Gulf of Chili and the Yellow Sea might be the passing routes of the migrating moths. A team of workers was then organized to observe the event.

The directions of flying were analyzed, but not consistent conclusion could be drawn. It might be pointed out that more moths appeared when prevailing winds were from the south. When the wind speed was not high, they flew against the wind; otherwise, they flew along with the wind. Accompanying the armyworm moths were insects immigrants such as Agrotis, Euxoa, Percnia, Heliothis, Clania, Crocothemis, etc.

(continued)
Prof LIN Ch'ang-shan (2651/2490/0810), Department of Biology, Peking University, directed the research; the work was jointly carried out by the Department of Biology, Peking University, and the Dairen Institute of Agricultural Sciences.

This paper was received for publication on 30 August 1962.

Authors' Affiliation: HSIA of Department of Biology, Peking University; TS'AI of Institute of Zoology, Chinese Academy of Sciences; TENG of Dairen Institute of Agricultural Sciences.

KUO Fu (6753/6744)
WU Ch'iu-yen (0702/4428/7159)
TS'AI Hui-lo (5591/1920/5012)
LIU Chin-lung (0491/6855/7893)

"Studies on the Reproduction of the Army worm, Leucania Separata Walker (Lepidoptera, Noctuidae): I. The Biological Characteristics of Adults"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 12, No 5-6, Nov 63, pp 565-576

Excerpts of English Abstract: The armyworm is one of the serious pests in China. In the past 2 years, we studied the general characteristics of reproduction in this migratory insect, such as the gross anatomy of the internal reproduction systems, the sexual scent organs, the nocturnal rhythm of sexual activity, the fecundity and the parthenogenesis, etc.

By considering the related facts existing between migration and reproduction of the armyworm, we suggest that the nuptial flight may be the initial cause of migration of this insect.

(Continued)

The migratory flight takes place just before the copulation and oviposition. From the study on ontogenetic development, it was found that the armyworm do not have diapause in any stage. If the armyworm be subjected in larval or pupal stage to the stimulus of unfavorable factor or factors, the adults necessarily migrate to a new habitat suitable for themselves and their offspring.

CH'EN Jui-chin (7115/3843/3866) made some of the drawings; LIN Tse-pin (2651/3419/3453) and HSIANG Hsiu-fen (7309/4423/5358) furnished materials and assisted with experiments.

This paper was received for publication on 19 March 1963.

Authors' Affiliation: All of the Institute of Zoology, Chinese Academy of Sciences.

HSU Ping-k'un (1776/4426/6924)
LI Chia-shan (7812/1367/3503)
CHEN Hsin-t'ao (7115/1800/7118)

"The Effect of Irradiation With γ-Ray; Co^{60} on the Development and Reproductive Power of Trombicula Akamushi Var. Deliensis"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 12, No 5-6, Nov 63, pp 578-585

Excerpts of English Abstract: The exposure of well-fed larvae of Trombicula akamushi var. deliensis to the irradiation with γ-rays of Co^{60} definitely affects its development. With 5,000 r, the effect on the larval development may not be clear-cut, but with the increase of the dosage, the percentage of the emergence of the nymph becomes lowered; when the dosage is increased to 20,000 r, almost 100% of the larvae fail to develop to the nymphal stage. The effect of irradiation on the development of the nymph is more readily noticed. A dosage as small as 2,500 r can give definite effect; and when it is increased to 20,000 r, not a single nymph develops to the adult stage. The effect on the reproductive power by exposure of the several instars to the irradiation of γ-rays of Co^{60} is given.

(Continued)

MO Yen-hsia (5459/5333/7209) assisted in observing and recording tests; the γ-ray radiation was handled by the Biophysics Teaching and Research Section of Chung-shan Medical College.

This paper was received for publication on 29 January 1963.

Authors' Affiliation: All of the Chung-shan Medical College, Canton.

CHOU Yao (0719/1031)

"Some Viewpoints About Insect Taxonomy"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 12, No 5-6, Nov 63, pp 586-595

Excerpts of English Abstract: The present paper is an extract from the author's new work, "Insect Taxonomy." It includes two parts. The first part deals with the general viewpoints about taxonomy. The second part deals with the viewpoints of the author on insect taxonomy. On the basis of the system and stages of evolution, the author has made new arrangements with regard to the division of suborders, superfamilies, and families; established 23 new suborders and a number of new superfamilies; and rearranged many superfamilies.

Author's Affiliation: Northwest Agricultural College.

TS'AI Pang-hua (5591/6721/5478)
LI Chao-lin (2621/0343/7792)

"Research on the Chinese Bark-Beetles of the Genus Cryphalus Er. With Descriptions of new Species"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 12, No 5-6, Nov 63, pp 597,621

Excerpts of English Abstract: The present paper contains the results of our work on the collections of bark beetles of the genus Cryphalus Er. in China during recent years. The whole collection contains 23 species and 3 subspecies; among them 11 species, 3 subspecies, and 2 subgenera are new to science and 4 species are new records to our Ipidofauna. The types of new species and all other materials are preserved in the Institute of Zoology, Academia Sinica.

CH'ENG I-ts'un (4453/5030/1317) did the drawings; the Photographic Laboratory, Institute of Zoology, Chinese Academy of Sciences, made the plates.

This paper was received for publication on 29 January 1963.

Authors' Affiliation: TS'AI of Institute of Zoology, Chinese Academy of Sciences; LI of Institute of Forestry and Soils, Chinese Academy of Sciences.

HSIEH Yun-chen (6200/5686/6297)

"Notes on Chinese Trypetid Flies II"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 12, No 5-6, Nov 63, pp 631-644

Excerpts of English Abstract: This is the second paper of our "Notes"; it deals with the tribe Acanthoneurini of the subfamily Trypetinae in three parts: (1) list of Chinese genera and species, (2) key to the Chinese genera, and (3) descriptions of new genera and species.

This paper was received for publication on 7 June 1963.

Author's Affiliation: Institute of Zoology, Chinese Academy of Sciences.

CH'En Ch'ang-ming (7115/1603/6900)
LIU Shih-lung (0491/0099/7893)

"Dynamics of the Populations and Communities of Rice Insect Pests in the Banks of the Tung-t'ing Lake Region, Hunan"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 12, No 5-6, Nov 63, pp 649-657

Excerpts of English Abstract: During the rice-growing season in 1961, the authors conducted a series of observations on the rice insect pests around Tung-t'ing Lake, Hunan. A total of 46 species of rice pests was found, the 45 insect species belonging to 18 different families and 8 orders and the other pest belonging to order Oligochaeta. Among these pests, the rice stem borers (3 spp.), the leafhoppers (4 spp.), the grasshoppers (2 spp.), the rice leaf-rollers (2 spp.), the rice weevil (1 sp.), the leaf beetle (1 sp.), the thrips (2 spp.), and the Annelida (1 sp.) are considered as major pests of rice in this locality. This paper not only deals with a comparison of the pest populations and communities between rice fields planted in early rice, middle rice, and late rice, but also deals with a similar comparison between the older and newer rice fields.

This paper was received for publication on 29 September 1962.

Authors' Affiliation: Both of Hunan Agricultural College.

HSU Yu-fen (1776/3768/5358)

"Observations on the Winteringover Habits of Some Species of Aphids in Chungking"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 12, No 5-6, Nov 63, pp 658-662

Excerpts of English Abstract: Field and laboratory investigations on the winteringover forms of five species of aphids, the cotton aphid, Aphis gossypii Glover, the English grain aphid, Macrosiphum granarium (Kirby), the turnip aphid, Rhopalosiphum pseudobrassicae (Davis), the green peach aphid, Myzus persicae (Sulzer), and the black citrus aphid, Toxoptera aurantii (Fonsc.), were carried out during 1955-1962 in Chungking, Szechuan.

YIN Ya-lin (1438/0068/2651) and LO Hsiang-yun (5012/4382/0061) assisted with the work.

This paper was received for publication on 6 March 1963.

Author's Affiliation: Southwest Agricultural College.

LIEN Wei-neng (6647/1919/5174)

"Preliminary Notes on the Seasonal Fluctuations of Three Species of Cockroaches"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica) Vol 12, No 5-6, Nov 63, pp 665-669

Excerpts of English Abstract: The present paper is a preliminary report on the fluctuations of three species of cockroaches in Lung-hua a suburb of Shanghai. The observations were carried out from February 1959 to January 1960.

Prof HSU Yin-ch'i (1776/5593/4388) directed the research; KAO Hsiu-ts'ai (7559/0208/2088) assisted with investigations.

This paper was received for publication on 31 October 1962.

Author's Affiliation: Department of Parasitology, Shanghai First Medical College.

TENG Kuo-fan (6772/0948/5672)
P'AN Tsung-wen (3382/6855-1350/2429)

"Notes on the Genus Hirstionyssus Fonseca in China With Descriptions of Two New Species (Acarina: Macronyssidae)"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 12, No 5-6, Nov 63, pp 670-677

Excerpts of English Abstract: The present paper deals with 19 species of the genus Hirtionyssus reported from China and consists of three parts: (1) inventory of the species, (2) descriptions of new species, and (3) key tc the Chinese species. All the type specimens are now deposited in the Institute of Zoology, Academia Sinica, Peiping, China.

This paper was received for publication on 17 May 1963.

Authors' Affiliation: Both of the Institute of Zoology, Chinese Academy of Sciences.

WANG Chieh (3769/2212)
HSIUNG Kuang-hua (3574/0342/5478)
LIU P'i-tsung (0491/0012/1350)

"A Bionomic Study of Phlebotomus Mongolensis in the Desert Area of Kansu Province, Northwest China"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 12, No 5-6, Nov 63, pp 679-686

Excerpts of English Abstract: The study was carried out from April to October 1960 in the desert area of Kansu Province, Northwest China, where two species of sandfly, Phlebotomus mongolensis and P. alexandri Sinton 1928, were collected and the gerbil (Rhombomys opimus) was found to be the dominant rodent present.

LIU Kuan-ch'en (0491/0385/1368) and YANG Kan-yuan (2799/6373/3293), Institute of Parasitology, Chinese Academy of Medical Sciences; Niu Hung-fa (3662/7703/4099), Kansu Provincial Institute of Medical Sciences; and SAI Shu-yuan (6357/2579/0337), Lanchow Medical College, assisted with the investigations. WANG Ts'ung-i (3769/1783/0001), director, and SUNG Yu (1345/2589), deputy director of the Meng-chiu-kang Health Division rendered assistance. TENG Lan-chou (7458/5695/3166) directed the research.

This paper was received for publication on 28 November 1962.

Authors' Affiliation: WANG and HSIUNG of Institute of Parasitology, Chinese Academy Medical Sciences; LIU of Kansu Provincial Institute of Medical Sciences.

CHANG Ko-cheng (1728/2706/2052)
HUANG Liang-lu (7806/5328/3619)

"A Preliminary Study on the Control of Cottony Cushion Scale by Australian Ladybeetle"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 12, No 5-6, Nov 63, pp 688-699

Excerpts of English Abstract: The Australian ladybeetle (Rodolia cardinalis), a predator of the cottony cushion scale, was introduced to South China from the Soviet Union in the year 1955 and to the vicinity of Chungking in 1960. It was a great success in the control of the cottony cushion scale. Our studies were chiefly on the life history of the Australian ladybeetle and its tolerance to some insecticides.

Our studies indicate that, 0.26--2.50 and 0.40--2.15 cottony cushion scale can be eaten daily by the ladybeetle larva and the adult, respectively.

Insecticide tolerance experiment in the laboratory showed that the adult ladybeetle and eggs were much more resistant to the insecticides than the larvae. The 0.10% D.D.T. emulsion or 0.047% E-605 emulsion was harmful to the adults, larvae, and eggs; 0.03% γBHC emulsion or 0.3--1.0° Bé lime-sulfur was harmful to the larvae, but less harmful to the adults and eggs; 0.05% Dipterx was safe to the ladybeetle at any stage.

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LO Hsiang-yun (5012/4382/0061) and HO Kuo-wen (5170/7948/2429), Department of Plant Protection, Southwest Agricultural College, assisted with the work; Prof LI Lung-shu (2621/7127/5890) of the same department read and corrected the manuscript.

This paper was received for publication on 15 August 1963.

Authors' Affiliation: Both of the Institute of Citrus Research, Chinese Academy of Agricultural Sciences.

HUANG P'in-chien (7806/0756/4702)
LIU Wei-te (0491/4850/1795)

"Studies on the Sexual Difference of the Larvae of Culex Pipiens Pallens Coq. in Relation to the Susceptibility to Gamma-BHC"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 12, No 5-6, Nov 63, pp 701-706

Text of English Abstract: The existence of sexual difference has been demonstrated in the various stages of the larvae of Culex pipiens pallens Coq. The simplest method to identify the sex of the larvae of this species depends upon the proceeding of the hatching and molting. The hatching and molting take place first in male, later in female.

The male larvae of 2d and 3d stages of the mosquito of this species are more tolerable to γ-BHC than the female; but in contrast to 2d and 3d stages, the females of the 4th stage larvae are more tolerable to the r-BHC than males.

According to the result of this research, the authors are of the opinion that the 2d stage larvae of the mosquito of this species would be more suitable for bioassay than other stages.

(Continued)

Prof KUNG K'un-yuan (7895/1181/0337) computed and corrected data.

This paper was received for publication on 6 August 1963.

Authors' Affiliation: Both of the Institute of Entomology, Chinese Academy of Sciences.

KUNG K'un-yuan (7896/0981/0337)
CHANG Kuei-lin (1728/2710/2651)
CHAI Kuei-jung (5049/2710/2837)

"Detecting and Measuring the Resistance of Cotton Aphis to Systox"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 13, No 1, Jan 64, pp 1-8

Excerpts of English Abstract: Cotton aphis, Aphis gossypii Glov., has become difficult to control with systox in some areas in the northern cotton belt of China. Samples of this insecticide have been subjected to chemical analysis and biological tests which show that the insecticide was in good condition, indicating that the cotton aphis may have developed a resistance to systox under field conditions.

A special capillary tube was designed for detecting and measuring quantitative resistance of this aphis to systox. This capillary tube, consisting of a glass tube and a fine glass capillary, can be manipulated to a drop below 0.03 ml. The cofficient of variation, for deliveries of 0.03 ml. acetone solution, was below 3 percent by the method of the isotope dilution technique.

(Continued)

Preliminary tests indicate that the resistance of the Ch'in Hsien strain (resistant strain) was much higher than that of aphids from any other place and was 135 times to 410 times higher than the Peking strain (susceptible strain), either with respect to LD_{50} or LD_{95}. There is no cross resistance between systox and methyl parathion, the latter still maintaining good control over this aphis.

This paper was received for publication on 16 October 1963.

Authors' Affiliation: All of Institute of Zoology, Chinese Academy of Sciences.

YU Ch'i-wei (1429/0366/0251)
P'ING Cheng-ming (1627/2973/2494)

"Studies on the Faunal Regions of Isoptera in China"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 13, No 1, Jan 64, pp 10-22

Excerpt of English Abstract: In the first part of this paper, an attempt has been made to define tentatively the terminology "the Fauna of the Insect."

In the second part of the paper, a modified scheme for classifying the Faunal regions of Isoptera in China is presented.

Finally, the geographic origin of Rhinotermitidae, the distribution characteristics of Macrotermitinae, and the relationships between Isoptera in China and those of other subregions of Oriental region are discussed.

This paper was received for publication on 24 April 1963.

Authors' Affiliation: Both of South China Subtropical Crop Institute.

TSAI Pang-hua (5591/6721/5478)
CH'EN Ning-sheng (7115/1380/3932)

"Problems on the Classification and Fauna of Termites in China"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 13, No 1, Jan 64, pp 23-37

Excerpt of English Abstract: A general discussion is made on the geographical distribution of the 62 known species of termites occurring in China.

This paper was received for publication on 3 December 1962.

Authors' Affiliation: Both of the Institute of Zoology, Chinese Academy of Sciences.

MA Shih-chun (7456/0013/7486)

"The Structure and Dynamics of Space, Number, and Time of Insect Population"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 13, No 1, Jan 64, pp 38-54

Excerpts of English Abstract: The present paper deals chiefly with a discussion on the problems of content of insect population dynamics, which have been generally classified under three categories, namely, space, number, and time.

Prof CH'EN Shih-hsiang (7115/7456/7534), Prof LIN Ch'ang-shan (2651/2490/0810), CH'EN Yung-lin (7115/3057/2651), WANG Min-hui (3769/2404/-1979), and HOU Wu-wei (0186/3541/0604) read the first draft and gave suggestions. FENG Hsi-ch'ang (3301/0823/2490) helped in corrections and format.

This paper was received for publication on 29 January 1963.

Author's Affiliation: Institute of Zoology, Chinese Academy of Sciences.

HSU Ping-k'un (1776/4426/6924)
LIU Tzu-chen (0491/1311/3791)
CH'EN Hsin-t'ao (7115/1800/7118)

"Studies on the Egg-Laying Habits of Trombicula Akamushi Var. Deliensis"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 13, No 1, Jan 64, pp 56-65

Excerpts of English Abstract: Experiments in the present research seem to show that in nature a few adults laying eggs erratically will not affect the statistics of large samples, and, thus given atmospheric temperature in any locality, one ought to be able to estimate the approximate number of eggs laid, the hatching rate, and the time required for the hatching. One can even estimate the total number of larvae hatching from these eggs.

FAN T'ai (5400/3141), CH'EN Ch'eng-fu (7115/2052/4395), and MO Yen-hsia (5459/5333/7209) participated in experiments.

This paper was received for publication on 29 January 1963.

Authors' Affiliation: All of Parasitology Teaching and Research Group, Chungshan Medical College, Canton.

LU Chin-jen (7120/6602/0088)

"On the Specialized Seta, Bothriotrichium, on the Larvae of the Army Worm, Pseudaletia Separata (Walker)"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 13, No 1, Jan 64, pp 67-75

Excerpts of English Abstract: The structure of the specialized setae is properly described herein for the first time. A survey on the development of these setae in the different instars was also made. It is found that the bothriotrichia first appear in the second instar. They gradually change in the later instars to the structure of the mature larva.

The lengths and diameters of these setae were measured, and the setal indexes were used in making comparisons between the different instars.

It is suggested that these specialized setae are useful in the homology of the body setae and the classification of the noctuid larvae. The function of the bothriotrichia is not yet known and deserves further study.

The author expresses thanks to YANG Chi-k'un (2799/7162/2492) for having discussed the work in progress and for having drawn the pictures.

(Continued)

This paper was received for publication on 1 February 1963.

Author's Affiliation: Peking Agricultural University.

HSIAO Ts'ai-yu (5618/2231/3842)

"New Species of Nabidae From China (Hemiptera-Heteroptera)"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 13, No 1, Jan 64, pp 76-83

Excerpts of English Abstract: The present paper deals with 15 species of Nadidae collected from various parts of China. Among them, six species are recorded for the first time in this country, while nine species and one genus are described as new to science.

JEN Shu-chih (0117/2885/5347) drew pictures.

This paper was received for publication on 4 October 1963.

Author's Affiliation: Department of Biology, Nankai University.

WANG Tun-ch'ing (3769/2415/3237)

"Five New Species and One New Record of Chiggers (Acarina: Trombiculidae) From China"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 13, No 1, Jan 64, pp 88-99

Extract of English Abstract: This paper reports six species of chiggers belonging to three genera, collected from Fukien and Chekiang, as follows: Gahrliepia (Schongastiella) confuciana, Gahrliepia (Gateria) myriosetosa, Tragardhula hsui, Tragardhula weni, Tragardhula sinica, and Neoschongastia asakawai Fukuzumi et Obata, 1953. The last is a new record for this country.

CHENG Pi-te (6774/1764/1779), WANG Hsiu-t'ing (3769/4423/0080), LIAO Hao-jung (1675/3493/3310), CHAO Chih-lieh (6392/1807/3525), and YU Chiu-fei (0205/0046/7378) collected specimens.

This paper was received for publication on 23 June 1962.

Author's Affiliation: Fukien Institute of Epidemic Diseases.

HUANG Pang-k'an (7806/6721/0170)
LO Hsiao-nan (0925/5135/0589)

"Studies on the Leafhopper, Empoasca Subrufa Melichar"

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 13, No 1, Jan 64, pp 101-116

Excerpts of English Abstract: The leafhopper, Empoasca subrufa Melichar, is one of the important insect pests of rice, wheat, sugar cane, sorghum, etc. in South China. The present study, conducted during 1957-1959 in Foochow and Minhou of Fukien Province, deals with the biology of the insect.

In the control of this leafhopper, it is advisable to use: (1) 25 percent DDT emulsion mixed with wettable 6 percent gamma-BHC in 1:1:500, (2) a mixed powder of 5 percent DDT and 0.5 percent gamma-BHC in 1:1 concentration, (3) an emulsion of 25 percent DDT in 1:300-400 parts of water, and (4) a powder of 2.5-5 percent DDT.

The authors express thanks to LIN Chia-kuang (2651/1367/0342), HUANG Shao-ming (7806/4801/2494), and YANG I-ch'ih (2799/0181/3589) for their help; to Prof CHAO Hsiu-fu (6392/0208/1788), Assistant Prof LIN Po-hsin (2651/0130/2946), and Technician LIN Yung-lieh (2551/3057/3525) for reading the first draft.

(Continued)

This paper was received for publication on 1 February 1963.

Authors' Affiliation: HUANG of Fukien Agricultural College; LO of Fukien Provincial Academy of Agricultural Sciences.

LENG Yen-chia (0397/1693/1367)

"Some New Records of Phlebotomus From Hainan Island With Descriptions of a New Species -- Phlebotomus Fanglianensis Sp. Nov."

Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica), Vol 13, No 1, Jan 64, pp 118-126

Excerpts of English Abstract: Five species and varieties of sandflies, namely, Phlebotomus stantoni, Phlebotomus iyengari var. hainanensis, and Phlebotomus kachekensis, have been reported by Yao and Wu (1938a) from Hainan Island. In 1956, Phlebotomus chinensis was found in Baisha Country of this island by the Institute of Parasitic Diseases, Chinese Academy of Medical Sciences.

The author expresses thanks to WU Cheng-chien (0702/1767/7003), director, Office of Scientific Research (K'o-hsueh Yen-chiu-chu) (4430/1331/4282/4496/5710), Chinese Academy of Medical Sciences; and HO K'ai-tseng (0149/0418/1073), Institute of Parasitology, Chinese Academy of Medical Sciences, under whose guidance this paper was done.

This paper was received for publication on 16 March 1962.

Author's Affiliation: Department of Biology, Liaoning University.

CH'I Cheng-wu (2058/2973/2976)
CHOU Shih-ch'ing (0719/0013/3237)

"Isolation and Study of the Properties of Carboxypeptidase From the Kidneys of Swine"

Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao (Acta Biochimica et Biophysica Sinica), Vol 2, No 1, Mar 62, pp 1-10

Excerpts of Russian Abstracts: A new carboxypeptidase, capable of hydrolyzing carbobenzoxylglycylphenylalanine, benzoylglycylarginine, and other synthetic carbobenzoxyl peptides, was discovered and isolated from the tissue cells of swine kidney. In contrast to carboxypeptidase isolated from the pancreas of bull, this enzyme has a broader specificity, capable of hydrolyzing peptide bonds of proline-lysine, on which other proteases or peptidases do not act. This paper describes the pH action of the enzyme and its activity. Satisfactory results were obtained in the application of this enzyme for determining the aminoacid composition from the C-terminal group.

(Continued)

The work in this paper was discussed by TS'AO T'ien-ch'in (2580/1131/2953); most of the substrate was supplied by the Organic Biochemistry Section, Institute of Biochemistry, Chinese Academy of Sciences, Shanghai.

This paper was received for publication on 29 September 1961.

Authors' Affiliation: Both of Institute of Biochemistry, Chinese Academy of Sciences, Shanghai.

HSU Ching-hua (1776/0079/5478)

"The Negentropy Intake of Biological Systems (As Shown by the Problems of Protein Nutrition)"

Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao (Acta Biochimica et Biophysica Sinica), Vol 2, No 1, Mar 62, pp 11-20

Text of English Abstract: Using the data of the essential amino acid requirements of different biological subjects (infants, adult human, and the rat) and amino acid content in various food peoteins, the negentropy intake from the food by these subjects was calculated from the standpoint of information theory. The negentropy was treated as the information content in the message transmitted through a noisy channel. A fairly good agreement was obtained by comparing the calculated negentropy with the nutritive values of various proteins observed experimentally. The properties, the unit of the negentropy, and its relation to the information content were discussed.

This paper was received for publication on 4 October 1961.

Author's Affiliation: Institute of Biochemistry, Chinese Academy of Sciences, Shanghai.

P'AN Chia-hsiu (3382/1367/4423)
HSU Chun-chieh (1776/0193/2638)
JEN Mei-hsuan (0117/2734/6513)

"Some Improvements on the Technique of Qualitative Analysis of Amino Acids: 1. Rapid Hydrolysis and High Temperature Paper Chromatography"
Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao (Acta Biochimica et Biophysica Sinica), Vol 2, No 1, Mar 62, pp 21-25

Excerpts of English Abstract: In the qualitative analysis for the amino acids of proteins and peptides, both the hydrolysis and chromatography procedure are usually time-consuming. By a suitable choice of the hydorlytic medium and by conducting chromatography at elevated temperatures, the time needed can be much reduced.

The authors express thanks to TS'AO T'ien-ch'in (2580/1131/2953) for his guidance.

This paper was received for publication on 5 October 1961.

Authors' Affiliation: All of Institute of Biochemistry, Chinese Academy of Sciences, Shanghai.

P'AN Chia-hsiu (3382/1367/4423)

"Some Improvements on the Technique of Qualitative Analysis of Amino Acids: 2. Two-Dimensional High-Voltage Electrophoresis and High-Temperature Chromatography, Small Paper Chromatography, and Agar-Electrophoresis"

Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao (Acta Biochimica et Biophysica Sinica), Vol 2, No 1, Mar 62, pp 27-32

Excerpts of English Abstract: An effective and rapid method for the separation of amino acids by a combination of high-voltage electrophoresis and high-temperature chromatography is described. Small paper (11 x 1 cm or 11 x 9 cm) was used for chromatography of amino acids with the solvent systems for high-temperature chromatography. Agar plate electrophoresis (barbital buffer, pH 8.8, ionic strength 0.025, 3.5 V/cm, 4 hours) was found to be better than the conventional two-dimensional paper chromatography using the toluene-phosphate or isoamyl alcohol-phosphate solvent systems, in that DNP-aspartic acid, DNP-glutamic acid, DNP-asparagine, and DNP-glutamine could be easily separated. The author expresses thanks to TS'AO T'ien-ch'in (2580/1131/2953) and CHOU Kuang-yu (0719/0342/1342) for their guidance. CHENG Ying-hsiu (6774/5391/4423) and HSU Hsiao-li (1776/2556/0448) assisted with the technical work.

(continuation of Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao, No1 2, No 1, pp 27-32)
This paper was received for publication on 5 October 1961.

Author's Affiliation: Institute of Biochemistry, Chinese Academy of Schieces, Shanghai.

CH'I Cheng-wu (2058/2973/2976)
TSOU Yung-shui (6760/3057/3055)

"Study of Protease From the Intestinal Tracts of Fresh-Water Fish"

Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao (Acta Biochimica et Biophysica Sinica), Vol 2, No 1, Mar 62, pp 33-39

Excerpts of Russian Abstract: Protese was isolated from the intestinal tracts of fresh-water fish (Mylopharyngodon piceus). The activity of the preparation under hydrolysis was shown to be approximately three times lower than with crystal trypsin. This enzyme has a predecessor in the form of zymogen. Optimum pH for zymogen activity lies around the value of pH 8. Optimum pH for hydrolysis of substrates, casein, and benzoylargininamide lies within the value of pH9. This enzyme is stable in heat. In constrast to other synthetic substrates, benzolylarginin amide is hydrolyzed by these enzymes at the greatest speed. Cysteine (10^{-3} M) and PKhMB (10^{-4} M) do not show any effect on the activity of the enzyme, but it is neutralized by the DFP [diphosphopyridine?] compound and the trypsin inhibitor. A substance similar to the trypsin inhibitor was found in the intestinal tracts of fresh-water fish. This strongly inhibits the activity of the protease in the fish, and it acts on trypsin to a much lesser degree.

(continuation of Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao, Vol 2, No 1 pp 33-39)
TS'AO T'ien-ch'in (2580/1131/2953) suggested the theme of this paper. CHU Te-hsi (2612/1795/3556) and CHANG Ai-yueh (1728/1947/2867) of the Biology Department, Nanking University, participated in some of the experimental work. CH'EN P'o-tu (7115/4275/6236) and LU Chu-ying (4151/5368/5391), of the fish-processing plant Shanghai Aquatic Products Bureau, supplied the materials, and Prof LO Chao-yao (7482/5128/1031) of Shanghai Fisheries College gave support to this work.

This paper was received for publication on 17 October 1961.

Authors' Affiliation: Both of Institute of Biochemistry, Chinese Academy of Sciences, Shanghai.

T'AN Jun-sheng (6223/3387/3932)
YEN Fu (0917/1788)
LI Shih-o (2621/1102/6166)

"Activities of Phosphate-Activated Glutaminase in Tumor Tissues"

Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao (Acta Biochimica et Biophysica Sinica), Vol 2, No 1, Mar 62, pp 41-47

Text of English Abstract: A comparative study of phosphate-activated glutaminase activity has been conducted in some normal and tumor tissues. It was found that:

(1) There was a wide range of difference in the glutaminase activity among the tumors so far investigated, which was, however, not as wide as that observed in the normal tissues. The highest level of glutaminase activity was found in the transplanted thymolymphosarcoma, which was about seven times higher than that in the normal thymus.

(2) During the growth of transplanted solid tumors, the glutaminase activity was found to vary with the weight to tumor tissue. An approximate parallelism between the increase in glutaminase activity and the weight of tumor has been observed in some, but not all, of the tumors so far studied.

(continuation of Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao, Vol 2, No 1, pp 41-47)

(3) The enzyme activity in the regenerating rat liver was lower than that in the normal liver.

(4) The possible significance of glutaminase to the growth of some tumors has been discussed.

This paper was received for publication on 24 October 1961.

Authors' Affiliation: All of Department of Biochemistry, Institute of Experimental Medicine, Chinese Academy of Medical Sciences, Peiping.

CHAO Te-chen (6392/1795/5211)
LI Shih-o (2621/1102/6166)

"Some Properties of Phosphate-Activated Glutaminase in the Thymus and Thymo-Lymphosarcoma and the Inhibitory Effects of Synthetic Glutamine Derivatites to the Enzyme Activity"

Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao (Acta Biochimica et Biophysica Sinica), Vol 2, No 1, Mar 62, pp 49-57

Excerpts of English Abstract: In this investigation, a comparative study has been made on the kinetic properties of glutaminase in the mitochondria of normal thymus and thymo-lymposarcoma. No significant differences were observed on pH optima, Michaelis constants, and the responses to both inhibitors and activators, indicating that the enzymes may possess similar active centers.

This paper was received for publication on 24 October 1961.

Authors' Affiliation: Both of Department of Biochemistry, Institute of Experimental Medicine, Chinese Academy of Medical Sciences, Peiping.

SHEN Yun-kang (3088/0336/6921)
SHEN Kung-mou (3088/7255/8574)

"Studies on Photophosphorylation: 2. The 'Light Intensity Effect' and the Intermediate Steps of Photophosphorylation"

Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao (Acta Biochimica et Biophysica Sinica), Vol 2, No 1, Mar 62, pp 58-65

Excerpts of English Abstract: In studying the quantum efficiencies of photophosphorylation and of the Hill reaction, it was found that at low light intensities the quantum efficiencies of photophosphorylation (either "cyclic" with PMS or vitamin K as cofactors or coupled with Fe $(CN)_6^{3-}$ reduction) were abnormally low, whereas those of the simultaneously measured Hill reaction remain constant. This unusual "light intensity effect" is evidently not related to the election transport chain, but is only concerned with the mechanism of ATP production. From the results, it was concluded that the "light intensity effect" of photophosphorylation is probably due to the destruction or removal of intermediates in the phosphorylation mechanism. At least two such intermediates are indicated; the one before the participation of Pi is less stable, and it (or its precursor) is, therefore, mainly responsible for the said effect. The relation of the proposed scheme to the results of other workers and in comparison with oxidative phosphorylation is discussed.

(continuation of Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao, Vol 2, No 1, pp 48-65)

CH'IEN Yueh-ch'in (6929/2588/3830) and WANG Hsiu-fang (3076/4423/5364) participated in the technical work.

This paper was received for publication on 18 December 1961.

Authors' Affiliation: Both of Institute of Plant Physiology, Chinese Academy of Sciences, Shanghai.

CH'IU Kuo-hsiung (6726/0948/7160)
YIN Hung-chang (3009/1347/4545)

"Studies on Photophosphorylation: 3. Photophosphorylation of Chloroplasts in Flashing Light"

Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao (Acta Biochimica et Biophysica Sinica), Vol 2, No 1, Mar 62, pp 67-73

Excerpts of English Abstract: Photophosphorylation of isolated chloroplasts mediated by phenazine methosulfate (PMS), menadione bisulphite (Vit. K), flavinmonomucleotide (FMN), and ferricyanide [$Fe(CN)_6^{=}$] and its coupled Hill reaction were studied in flashing light. Natural sunlight focused by convex lenses to an intensity of about 300,000 lux and intercepted by a rotating disc was used as the flashing source. Chloroplasts were prepared from young leaves of water-cultured wheat seedlings. ATP was measured ^{32}P incorporated by the method of Nielsen and Lehninger.

This paper was received for publication on 26 December 1961.

Authors' Affiliation: Both of Institute of Plant Physiology, Chinese Academy of Sciences, Shanghai.

FAN Shih-fan (5400/0013/5672)
HUNG Ming-hsia (3163/2494/7209)

"The Ratio of Protein Concentration of A and I Bands in the Myofibrils of the Indirect Flight Muscle of Honey Bee Stretched to Different Degrees"

Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao (Acta Biochimica et Biophysica Sinica), Vol 2, No 2, Jun 62, pp 79-83

Text of English Abstract: The ratio of protein concentration of the A and I bands in the myofibrils of the glycerine-extracted indirect flight muscle of the honey bee stretched to different degrees has been measured with the aid of the Baker interference microscope. With the sarcomere length increasing from 3.0μ to 4.7μ, the ratio increased slightly, and the results are in general agreement with the theoretical values calculated on the basis of the one-filament model of the myofibril proposed by Hodge for the indirect flight muscle of Diptera.

This paper was received for publication on 12 December 1961.

Authors' Affiliation: Both of Institute of Physiology, Chinese Academy of Sciences, Shanghai.

LIU Ch'eng-pin (0491/2110/2430)
HU Ping-sheng (5170/3521/8508)
LIANG Chih-ch'uan (2733/2784/2938)

"Studies of the Analysis of Nucleic Acid Bases: 1. A Direct Spectrophotometric Method for the Analysis of the Uracil and Thymine in RNA and DNA"

Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao (Acta Biochimica et Biophysica Sinica), Vol 2, No 2, Jun 62, pp 84-91

Excerpts of English Abstract: a spectrophotometric method has been developed for the determination of uracil and thymine directly from the acid hydrolysate of purified RNA and DNA -- the recovery being 99-102% for uracil and 97-104% for thymine.

The limitation of this method is discussed.

This paper was received for publication on 18 December 1961; it was read at the 1961 annual scientific technological conference of the Peking Municipal Physiology Society.

(continuation of Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao, Vol 2, No 2, pp 84-91)

Authors' Affiliation: All of Department of Biochemistry, Institute of Experimental Medicine, Chinese Academy of Medical Sciences, Peiping.

YEH Jung (5509/1369)
HUANG Shih-k'ai (7806/0013/2818)

"The Ultrastructure of the Myelin Sheath of the Prawn Nerve Fiber"

Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao (Acta Biochimica et Biophysica Sinica), Vol 2, No 2, Jun 62, pp 93-96

Text of English Abstract: Osmium-fixed prawn (Macrobrachium nipponensis) nerve cord was prepared in thin sections for electron microscopic investigation. The myelin sheaths of the nerve fibers present three types of ultrastructure of ultrastructure. The sheaths of the first type partially contain concentric lamellae, whereas those of the second type are composed wholly of lamellae, the repeating unit of which measures 240 A. The sheaths of the third type are also completely laminated, but show a different pattern and repeat at 420 A. All the three types seem to indicate different degrees of myelinization. As the patterns of the laminated structures of the prawn nerve differ from that of the vertebrate nerve, it suggests a miltiplicity in this cellular structure. Besides, in certain nerve fibers of the prawn appear fairly long infoldings invaginating into the axoplasm.

(continuation of Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao, Vol 2, No 2, pp 93-96)

The author express thanks to Prof FENG Te-p'ei (7458/1795/1014) for his guidance. HUANG Chung-ying (7806/6945/5391) and CHANG T'ieh-feng (1728/6993/1496) participated in the technical work.

This paper was received for publication on 21 December 1961.

Authors' Affiliation: Both of Institute of Physiology, Chinese Academy of Sciences, Shanghai.

TU Yu-ts'ang (2629/7183/5547)
TSOU Ch'eng-lu (6760/2110/7627)

"The Spectrophotometric Determination of Disulphide Groups in Protiens"

Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao (Acta Biochimica et Biophysica Sinica), Vol 2, No 2, Jun 62, pp 100-109

Excerpts of English Abstract: The reaction between disulphides and sulphite has been utilized for the determination of disulphide groups in proteins. The sulphydryl groups thus produced were allowed to react with p-chloromercuribenzoate, and the increase in light absorption in the ultraviolet region represented the content of disulphide bonds in the proteins examined. Alternatively, the excess of p-chloromercuribenzoate remaining can be extracted into carbon tetrachloride and measured with diphenylthiocarbazone colorimetrically at 625 mμ.

LI Li-hsia (2621/7787/7209) participated in some of the experimental work.

This paper was received for publication on 10 January 1962.

Authors' Affiliation: Both of Institute of Biochemistry, Chinese Academy of Sciences, Shanghai.

SHEN Kung-mou (3088/7255/8574)
YANG Shan-yuan (2799/0810/0337)

"Studies on Photophosphorylation: 4. Mehler Raction and Photophosphorylation"

Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao (Acta Biochimica et Biophysica Sinica), Vol 2, No 2, Jun 62, pp 111-118

Excerpts of English Abstract: In the present paper, the activities of the Mehler reaction and photophosphorylation of isolated wheat-seedling chloroplasts were simultaneously determined.

The authors express thanks to Prof YIN Hung-chang (3009/1347/4545) for his guidance. WANG Hsiu-fang (3076/4423/5364) and CH'IEN Yueh-ch'in (6929/2588/3830) participated in the work.

This paper was received for publication on 26 January 1962.

Authors' Affiliation: Both of Institute of Plant Physiology, Chinese Academy of Sciences, Shanghai.

WANG Shan-yuan (3769/0810/3293)

"Cosmic Radiation and Tuberculosis: IV. Influence of Cosmic Radiation on Tuberculosis at High Altitude (3.130M) and At Sea-Level"

Peiping, Scientia Sinica, Vol 13, No 1, Jan 64, pp 61-80

Text of English Summary: (1) At high altitude (3.130 m), tuberculous mice exposed to cosmic radiation under 10 cm of lead showed a significantly greater mean survival time and a significantly greater number of survivors than tuberculous mice exposed to direct cosmic radiation. (2) Tuberculous mice exposed to cosmic radiation at high altitude under 10 cm of lead showed a significantly greater mean survival time than tuberculous mice kept at sea level, exposed to direct cosmic radiation, to cosmic radiation under one cm, 2 cm, and 10 cm of lead. (3) The correlation analysis shows that a decrease in lung lesions is associated with an increase in survival time. The decrease in lung lesions is associated with an enlargement of the spleen. (4) At high altitude, the female showed a significantly greater number of survivors than the male. At sea level, no significant difference was observed. On the average, the female showed a significantly greater number of survivors. (5) The beneficial effect of daylight with ultraviolet light on tuberculous mice was manifested in a lower maximum of mortality and in a significant decrease of lung and spleen lesions.

(continuation of Scientia Sinica, Vol 13, No 1, Jan 64, pp 61-80)

The author is greatly indebted to T. C. Wu, T. Wu, and H. L. Nieh, directors of the Hsiao Wu Tai Forest, for great help with the experiments in this work. Gratitude is also expressed to D. Y. Chang, Mrs S. L. Chao, Mrs C. S. Fang, Y. M. Liu, and P. S. Yen for their assistance in the cosmic radiation experiments; also to the many mountaineers for transporting laborabory equipment and food.

The date span of the six references is 1948-1962.

This paper was received for publication on 7 April 1962.

Author's Affiliation: Institute of Epidemiology and Microbiology, Chinese Academy of Medical Sciences, Peiping.

Earth Sciences

LU Yen-hao (4151/5888/6275)

"New Information on Stratigraphy of the Cambrian Period in China"

Peiping, Ti-chih Hsueh-pao (Acta Geologica Sinica), Vol 43, No 4, Nov 63, pp 317-329

Text of English Abstract: This paper deals with the new observations on the stratigraphy of the Cambrian in Southern and Central Anhwei, Northwestern Kiangsi, Western Kwangtung, Hainan Island, Southeastern Kweichow, Yunnan, and Northern Szechwan. The most important sections are briefly described. The discovery of Palaeolenus in Liaotung, Shantung, and Northern Anhwei indicates that in the Tsanglangpu time (Middle Lower Cambrian) the sea invaded North China and the southern part of Northeast China. In Hainan Island of Kwangtung, Xystridura and Dawsonia were found in a shale, sandstone, and limestone series overlain conformably by a thick-bedded limestone. Comparison with other sections of South China suggests that a complete Middle and Upper Cambrian sequence was deposited in this area. In western Liaoning, the Shakuotun limestone and its under lying "Sinian" limestone have been divided into the Fengshan, the Changshan, the Kushan, and the Changhsia formations. The occasion of the Saukid-Ptytchaspid trilobite bands in the Olenid fauna in Southern Anhwei and the

(continued)
association of Aphelaspis with Proceratopyge, Prochuangia, Yuepingia, etc. in the Langyashan limestone of Chuhsien, Northern Anhwei, afford the stratigraphical correlation of the Cambrian faunas of the Atlantic Province with the Pacific Province. The distribution of the Cambrian faunas in China is discussed with relation to the depositional environments and the ecological conditions.

References: A total of 37 refereces are used, of which 21 are in Chinese (including 6 by LU of this paper), 2 in Russian, one in German, 2 in French, and 11 in English. Date span is 1915-1962.

This paper was received for publication in November 1962.

LI Shih-ch'i (2621/0013/3823)

"A Discussion on the Dispersal and Age of Mesozoic Coal Beds in Southeastern Hunan Province"

Peiping, Ti-chih Hsueh-pao (Acta Geologica Sinica), Vol 43, No 4, Nov 63, pp 331-342

Excerpts of Russian Abstract: Opinions on the dispersal and age of coal-bearing deposits in southeastern Hunan Province have hitherto been divided. Some consider that the entire coal-bearing suite relates to Jurassic deposits. Others think that it relates to Rhetian-Liassic deposits. Still others consider these deposits to be binomial: the lower part has the Rhetian age, and the upper the Liassic, since the break in the sediment deposit, conditioned by the San-tu movement, serves as their boundaries. The author of this paper presents the dispersal of Mesozoic deposits in in the studied region on the basis of observations on geological cross-sections and traces of geological movements in various places, as well as on the basis of plant fossil collected during prospecting over a number of years. The variance of the Pa-tiao-ling suite with the I-hsin-t'ing suite is clearly expressed. Despite the presence of sediment from Jurassic flora in the I-hsin-t'ing suite, the latter is entirely lacking in the leading Upper Triassic forms (e.g., Danueopris, sp., Ptilozamites chinensis Hu, and others) which are found in the Pa-tiao-ling suite. Conversely, leading Jurassic forms which do not occur in the I-hsin-t'ing

(continued)
suite (e.g., Coniopteris sp., and others) appear as new elements. Thus, except for individual forms common to both suites, all the remaining forms, especially leading forms of the Rhetian stage, are unknown in the Pa-tiao-ling suite. The two suites also differ sharply as to their plant fossil. Thus, the author can in no way support certain investigators who relate the Mesozoic coal-bearing suite as a whole to the Jurassic.

References: All of the 15 references are in Chinese. One of these is from a draft report compiled by the Editorial Committee on Chinese Geology, Institute of Geology, Chinese Academy of Sciences, in 1956.

Date span of the other references is 1933-1959.

This paper was received for publication in September 1962.

LI T'ing-tung (2621/1694/2767)

"Tectonic Characteristics of Northern Ta-hsing-an-ling [Mountains] and the Process of Polycyclic Development"

Peiping, Ti-chih Hsueh-pao (Acta Geologica Sinica), Vol 43, No 4, Nov 63, pp 345-359

Excerpts of Russian Abstract: This paper is comprised of four sections: (1) the geotectonic characteristics of Ta Hsing-an-ling; (2) the polycyclic process of the geotectonic development; (3) tectonic regional division; and (4) conclusion. The first and second sections summarize the various viewpoints of Chinese and foreign geologists on this topic. The author divides the history of the region's tectonic development into two large stages: parageosyncline and paraplatform. In the third section, the author divides the entire region into four tectonic elements, based on Mesozoic structures: the Upper Heilungkiang depression, the Argun upheaval, the Hailar depression, and the Upper Nun-chiang upheaval. The fourth section lists the tectonic characteristics of the region with six preliminary conclusions.

(continued)
The author expresses thanks to YANG Yun (2799/5366) and CHAO Mei-hsing (6392/2734/7451) for assisting in the preparation of tables and sketches for this paper.

References: Of the 21 references used in this paper, 15 are in Chinese (including 5 translated from the Russian) and 6 in Russian.

This paper was received for publication in December 1962.

T'U Kuang-ch'ih (3205/0342/3589)
LI Hsi-lin (2621/6932/2651)

"Special Developmental Characteristics in the Oxidation Zone of Sulfide Deposits Under Dry and Extremely Dry Climatic Conditions (With Special References to Ore Deposits in Northwest China)"

Peiping, Ti-chih Hsueh-pao (Acta Geologica Sinica), Vol 43, No 4, Nov 63, pp 361-375

Excerpts of English Abstract: Field observations and subsequent laboratory studies on five sulfide deposits (2 Pb-Zn deposits, one copper-bearing pyritic deposit, 2 sulfide mineralizations) show that the oxidation zone of these deposits differs to a considerable extent from the corresponding deposits in humid regions, in the vertical zoning effects, in mineral assemblage, and in distribution and fixation of various elements. The oxidation zone under consideration can be subdivided into three vertical subzones. They are (from top downward): (1) the limonite-hematite subzone; (2) the jarosite subzone; and (3) the subzone of gypsum and nature sulfur.

The authors have been able to identify more than 30 sulfate minerals, not accounting the different varieties. In addition to jarosite, copiapite, fibroferrite, halotrichite, and sideronatrite are the common sulfates, but in much lesser amounts than jarosite. The sulfate minerals follow

(continued)
a rather definite pattern in distribution. Secondary zinc minerals, such as smithsonite, hydrozincite, willemite, and hemimorphite, are either absent or very weakly shown in the oxidation zone of all the deposits under consideration. In the zone of oxidation of the Pb-Zn deposit, situated on the northern border of the Tsaidam Basin, zinc copiapite and zinc botryogen are relatively widely distributed. Na, K, CA, and Mg are relatively abundant in the oxidation zone of all the deposits referred to. The Na content seems to be predominant over that of K, both elements being represented chiefly in jarosite and sideronatrite and, to a much smaller extent, in metavoltine, voltatite, goldicite, metasideronatrite, and amarillite.

The above-mentioned main characteristics of the oxidation zone of the sulphide deposits owe their origin to the extremely arid climate, which seems to have prevailed in the regions studied since the post-Tertiary time, during which period the primary sulfide ores have gradually been altered to the present state.

(continued)
The authors express thanks to YEH Yun-ch'in (5509/7301/3830), JEN Ying-ch'en (0117/5391/1820), and HO Kuan-chih (6320/3487/0037) for conducting both field and laboratory work on ore deposits.

References: Of the 23 references used in this paper, 3 are in Chinese, 11 in English, one in German,and 8 in Russian.

This paper was received for publication in April 1963.

WEN Kuang(5113/1684)
WEN Lu (5113/6526)

"Further Discussion on the Specialized Mineralization Characteristics of Magmatic Rock"

Peiping, Ti-chih Hsueh-pao (Acta Geologica Sinica), Vol 43, No 4, Nov 63, pp 378-391

Text of Russian Abstract: Actual materials on petrochemistry were collected to explain the metallogenic specialization of intrusive rock in the lime-alkali series (cf tables 6 and 7 in the text). The following representation (cf illustrations 6 and 7 in the text) is obtained by standard statistical methods (variation diagrams): In proportion to the increase in acidity in the rock, the content of the main metals in the ore-bearing intrusions has the rational series:

Cr - Ni(Cu) - TiFe(V) - Fe - Cu - Mo - W - Sn.

References: A total of 96 references are used, including 4 in Chinese, 48 in English, one in French, one in Norwegian, one in Swiss, 9 in German, and 32 in Russian. The date span is 1892-1962.

This paper was received for publication on 16 January 1963.

KAO Fan (7559/0028)
LO Peng-lai (5012/7720/0171)

"On the Metamorphic Mineral Zone of Certain Skarn-type Ore Deposits in Hopeh Province"

Peiping, Ti-chih Hsueh-pao (Acta Geologica Sinica), Vol 43, No 4, Nov 63, pp 394-408

Text of English Abstract: In this skarn-type of ore deposit, several approximately parallel metamorphic zones were noticed between Sinian delomite and Yenshan porphyritic granite, which belongs to a branch of a great igneous intrusion. There is a certain rule in such zonal distribution. All the rocks in the contact zones, including those in the immediate and approximate parts of the intrusion, have been metamorphosed to various extent.

Four kinds of metamorphic zones are revealed in the chronological order, namely: (1) purely thermal metamorphic zone, (2) metasomatic contact metamorphic zone, (3) serpentinized zone, and (4) ore-bearing hydrothermal alteration zone.

Chemical analyses of granite and rock samples of various metamorphic zones are given in tables as evidence to explain development of different metamorphic zones especially (1) and (2) zones.

(continued)
The authors express thanks to CHU Kuan-hsi (2612/3562/3556),

LIU Hsueh-jen (0491/1331/0088), and others for assisting in the preparation of this paper in many ways.

References: Of the 20 references used for this paper, 12 are in Chinese (including one translated from the Russian) and 8 in English (including 2 from English publications of the Chinese Academy of Sciences).

This paper was received for publication in October 1962.

CHAO Lun-shan (6392/1510/1472)

"Crystallochemical Properties and Geochemical Behavior of Germanium"

Peiping, Ti-chih Hsueh-pao (Acta Geologica Sinica), Vol 43, No 4, Nov 63, pp 410-413

Text of Russian Abstract: The ion radius of germanium, according to Goldschmidt, is $RiGe^{4+}$ = 0.44Å. He also established the close isomorphous substitution of germanium by silicon. However, many questions on the behavior and occurrence of germanium in nature cannot be explained in this representation. Analysis of the crystalline structure of the varieties of GeO_2 corroborates that, at least in oxygen compounds, the ion radius of germanium 0.53Å more closely corresponds to actuality. In its crystallochemical nature, Ge^{4+} greatly resembles Al^{3+} and easily forms a tetra- and hexa-coordination with O^{2-}. Thus, germanium in rocks and minerals, besides replacing Si^{4+}, can isomorphously replace hexacoordinate Fe^{3+}, Al^{3+}, etc. Similar replacement is corroborated by the experiment of the synthesis of germanium-containing magnetite. Thus, it was established that in the process of magmatic crystallization, germanium not only follows the Si^{4+}, but also replaces the hexa-coordinate ions Fe^{3+}, Al^{3+}, and others which are in the lattice of the minerals. The accumulation of germanium in the pegmatite process is also related to its favorable substitution of hexacoordinate ions in minerals of pegmatite formations.

(continued)
References: Nine references are used in this paper. One is in Chinese, two are in English (one written by a Japanese and one by a Frenchman), and the remaining six are in Russian. Date span is 1938-1962.

This paper was received for publication in February 1963.

LIN Pao-yu (2651/1405/3768)

"Some Carboniferous and Permian Tabulata in South China"

Peiping, Ku-sheng-wu Hsueh-pao (Acta Palaeontologica Sinica), Vol 11, No 4, Nov 63, pp 579-590

Excerpts of Russian Summary: This paper describes certain Carboniferous and Permian Tabulata, variously located in the provinces of Kwangsi, Kweichow, Shensi, and Szechwan. The author classifies four main orders as follows: Order Favositida Wedekind, 1937, emend. Sokolov, 1950, with 7 sublistings; Order Syringoporida Sokolov, 1947, emend. Lin with 5 sublistings; Order Sarcinulida Sokolov, 1955, emend. Lin with 4 sublistings; and Order Auloporida Sokolov, 1950 with 2 sublistings. Six tables with corresponding illustrations are appended.

Author's Affiliation: Research Academy of Geology, Ministry of Geology.

LI Hsing-hsueh (2621/2502/1331)

"On the Age of the Flora From the Wu-tung Series in China"

Peiping, Scientia Sinica, Vol 13, No 1, Jan 64, pp 97-103

Text of English Abstract: The flora of the Wu-tung series has long been known to be of the early Lower Carboniferous age (Gothan et Sze, 1933; Sze, 1936, 1952, 1956; Jongmans, 1954; Ananiev, 1958, etc.). In 1943, Prof H. C. Sze proposed the name "Wutungian" as a chronological unit to represent the Wu-tung series, which, consisting mainly of continental sediment, is widespread in China and is characterized by a special flora. Recent discoveries of an Antiarchi fish fauna and a typical Upper Devonian plant Leptophloeum rhombicum Daws.from the upper part of the Wu-tung series have, however, brought serious objection to setting the early Lower Carboniferous age for the flora of the Wu-tung series as generally accepted. The present study is intended to discuss whether or not an Upper Devonian age for the flora of the Wu-tung series would be inconsistent with the conclusions based on stratigraphical and palaeontological evidences. It is to be hoped that the conclusion drawn from this discussion may be useful in solving the considerable diversity of opinion among geologists and palaeontologists as to the age of the Wu-tung series.

(continued)
Refernces: Date span of the 23 references is 1931-1963.

This paper was received for publication on 10 September 1963.

Author's Affiliation: Institute of Geology and Palaeontology, Chinese Academy of Sciences.

Technical Sciences

CHOU K'un-yung (0779/0981/3057)

"Thermoelectric Refrigeration"

Peiping, Chi-hsieh Kung-ch'eng Hsueh-pao (Chinese Journal of Mechanical Engineering), Vol 11, No 4, Dec 63, pp 1-15

Text of English Abstract: Thermoelectric refrigeration is practically adopted, and its use is extended in the fields of industry and scientific research. This paper deals with the theory of its mechanism and its applications, particular emphasis being placed on deviations obtained from the theory.

References: Date span of the 22 non-chinese references is 1958-1962.

Author's Affiliation: East China Chemical Engineering College.

LI Ch'ang-tse (2621/2490/3419)

"An Investigation of the Influence of the Uniformity of Abrasive Grains on the Quality of Grinding Wheels and Their Grinding Properties"

Peiping, Chi-hsieh Kung-ch'eng Hsueh-pao (Chinese Journal of Mechanical Engineering), Vol 11, No 4, Dec 63, pp 16-22

Excerpts of English Abstract: The uniformity of abrasive grains of a grinding wheel has a very strong influence on the latter's grinding property. This article advances a definition of uniformity and the technical principles involved in manufacturing grinding wheels with diverse uniformities. Scientific experiments and studies were made by means of cylindrical grinding machines, and the results showed that grinding wheels with a higher content of the basic fraction of grains are superior in both grinding quality and grinding capacity.

References: The most recent of the three Russian references is dated 1963.

Author's Affiliation: Research Institute of Abrasives, Grinding Tools, and Grinding (Mo-liao Mo-chu Mo-hsiao Yen-chiu-so, 4333/2436/4333/0367/4333/0465/4282/4496/2076).

WANG Ying-shih (3769/2019/2514)

"Application of the Reaction Rate Theory in Determining the Effects of Inlet Parameters on the Blow-Off Limits in a Highly Stirred Reactor"

Peiping, Chi-hsieh Kung-ch'eng Hsueh-pao (Chinese Journal of Mechanical Engineering). Vol 11, No 4, Dec 63, pp 23-40

Test of English Abstract: The contents of this paper are as follows:

1. According to Longwell's reaction rate theory, an approximate method for the determination of the blow-off limits is suggested.

2. Based on the analysis of the combustion process of C_nH_{2n} with air, the present paper points out that the blow-off limits $[(\overline{N}/\overline{VP}^n)_{B.O.}, T_{B.O.}, \epsilon_{B.O.}]$ are independent of n, if the reaction of the combustion process is represented by Eq. (11).

3. The second conclusion can also be used for any hydrocarbon fuel (C_nH_m), if n is large and m approaches 2n.

References: The most recent of the ten foreign references is dated 1960.

Author's Affilation: Chinese Academy of Sciences.

CH'EN Tan-chih (7115/0030/0037)

"The Scaling Rules for Turbojet and Gas Turbine Combustion Systems"

Peiping, Chi-hsieh Kung-ch'eng Hsueh-pao (Chinese Journal of Mechanical Engineering), Vol 11, No 4, Dec 63, pp 41-63

Text of English Abstract: Many scaling procedures have been developed in the past 10 years, but none of them has been recognized as the general rule for the scaling of combustion systems of turbojet engines and gas turbines. The present paper deals with the general method of finding the possible scaling rules for such systems. After presenting the scaling theory with respect to the liquid droplet spray combustion systems, the author examines the existing works in that field on the basis of the suggested theory. New scaling procedures are proposed and some conclusions are drawn.

References: The most recent of the 22 foreign references is dated 1960.

Author's Affiliation: Chiao-t'ung University, Sian.

WANG Pu-hsuan (3769/5943/1357)

"On the Determination of the Economical Thickness of Pipe Thermal Insulation"

Peiping, Chi-hsieh Kung-ch'eng Hsueh-pao (Chinese Journal of Mechanical Engineering), Vol 11, No 4, Dec 63, pp 64-70

Text of Chinese Abstract: The article compares two different methods for calculating the economical thickness of pipe thermal insulation. The methods are the 'Minimal Annual Operating Expense System," which was presented by the author in two previous papers, and the "Investment Restoration Within Limited Period System." The applicability of nomograms recommended in the previous papers to the second of the above methods is shown. Problems expected to occur in actual calculations are proposed for consideration in formulating China's design code.

Author's Affiliation: Tsinghua University.

CHUANG Chen-wan (1641/7201/5502)

"Analysis of Nonsteady Laminar Flow of Fluid Through Flat Duct in the Inlet Region"

Peiping, Chi-hsieh Kung-ch'eng Hsueh-pao (Chinese Journal of Mechanical Engineering), Vol 11, No 4, Dec 63, pp 71-80

Text of English Abstract: In this paper, a theoretical analysis is given for nonsteady laminar flow of fluid through flat duct in the entrance region. Starting from rest, analytical explanations are presented for the velocity distribution. Flow resistance and inlet length are represented by formulas (50), (51), and (52), respectively. The problem of transition from nonsteady flow to steady flow is discussed. A particular calculated example is given for the case of average velocity, $\bar{u}(t) = [1-e^{-r^2 1-\frac{tv}{h2}}]$, where $\bar{u}_o$ is the final value of $\bar{u}(t)$ when steady flow condition is reached.

Author's Affiliation: Chinese Academy of Sciences.

CH'EN Jung-san (7115/2837/0005)
CH'EN Shan-chu (7115/3790/3796)

"An Investigation of New Hardening Agents of Sodium Silicate-Bonded Sand"

Peiping, Chi-hsieh Kung-ch'eng Hsueh-pao (Chinese Journal of Mechanical Engineering), Vol 11, No 4, Dec 63, pp 80-87

Abstract: Judging from the N-shaped characteristic curve of gelation of silicic acid, it is assumed that the gelation time can be controlled by varying the pH of the solution. Therefore, when a suitable amount of hydrochloric acid or calcium chloride is added to a water glass solution to lower its pH to a definite value, the molding sand with which the solution is mixed will harden within the time corresponding to that particular pH value, as demanded by production operation. Results of preliminary experiments indicate that the two hardening agents formed as described above may be considered for use in pilot production. Their use will not only save large amounts of carbon dioxide, but also make possible the mechanization and automatization of the casting process.

References: Fifteen listed references include seven recent (1962-1963) articles by CH'EN Jungtsan and/or his colleagues at Nanking University.
Author's Affiliations: CH'EN Jung-san, Nanking University; CH'EN Shan-chu, Department 7, Nanking Engineering College.

SHEN Chao-yuan (3088/6856/3293)

"Discussion on the Paper, 'Experimental Studies on Boiling Heat Transfer Enhanced by the Effect of Spring Leaf Vibrations'"

Peiping, Chi-hsieh Kung-ch'eng Hsueh-pao (Chinese Journal of Mechanical Engineering), Vol 11, No 4, Dec 63, pp 88-90)

Abstract: The article is a critique of paper coauthored by KO Shao-yen (5114/4801/1484) and others, which paper was published in the Volume 10, No 4, 1962, issue of the Peiping Chi-hsieh Kung-ch'eng Hsueh-pao (Chinese Journal of Mechanical Engineering), Volume 11, No 4, December 1963, pages 88-90.

Author's Affiliation: Wu-hsi College of Light Industry.

KO Shao-yen (5514/4801/1484)
WANG Heng-yueh (3769/1854/2588)
WU Wen-huang (0702/2429/6855-0342)

"Discussion on the Paper 'Experimental Studies on Boiling Heat Transfer Enhanced by the Effect of Spring Leaf Vibrations'"
Peiping, Chi-hsieh Kung-ch'eng Hsueh-pao (Chinese Journal of Mechanical Engineering), Vol 11, No 4, Dec 63, pp 91-92

Abstract: The authors, who are three of the original four coauthors of the paper under discussion, accept with appreciation and review the ideas of SHEN Chao-yuan which were expressed in a critique of their paper.

Authors' Affiliation: All of the Chinese Academy of Sciences.

LIU Kao-lien (0491/7559/5114)
HSUEH Ming-lun (5641/2494/0243)

"On Aerodynamic Calculation of Torsional Blades With Conical Stream Surfacts"

Peiping, Chi-hsieh Kung-ch'eng Hsueh-pao (Chinese Journal of Mechanical Engineering), Vol 11, No 4, Dec 63, pp 93-95

Abstract: The authors point out and correct some errors found in papers written by foreign authors, including I. S. Lyubchenko's "Use of Input Parameters To Compute Turbine Stages With Conical Meridinal Profile," which is published in Izvestiya VUZ, Seriya Aviatsionnaya Tekhnika, No 1, 1963, pages 80-88.

References: Among wix references are two by the authors on the subject of aerodynamic design and analysis of turbomachines, both of which papers were published in the No 1, 1963, issue of source. One was co-authored by Prof WU Chung-hua (0702/0112/5478).

Authors' Affiliation: Both of the Chinese Academy of Sciences.

CHAO K'o-ching (6392/3784/4842)

"Study of Annual Variations of Stream-Flow of Large Rivers in China"

Peiping, Shui-li Hsueh-pao (Chinese Journal of Hydraulic Engineering), No 4, Aug 63, pp 1-11

Excerpts of Chinese Abstract: This paper separately analyzes many annual variations of stream-flow of seven large rivers in China and the relationship between the seven rivers and the circulation of the atmosphere. Their important special characteristics are: (1) The degree of change from year to year in water volume is small in South China streams and large in North China streams. (2) There is no strict periodicity in the volume of water in streams over the changes of many years; however, in general, there is a phenomenon of a cycle of obvious abundance of water and a shortage of water. (3) The shortage-of-water period for various rivers generally is continuous, ranging from 5 to 12 years, and the longest shortage-of-water period for the Yellow River and other northern rivers is longer in comparison with the various rivers of the south. (4) It is possible that the seven large rivers and the numerous streams could manifest a shortage-of-water period and a abundance-of-water period at the same time, and it is possible that they could

(Continuation of Shui-li Hsueh-pao, No 4, 1963, pp 1-11)
manifest a continuous shortage-of-water period at the same time. Coming from the trend of long-term change, there is a definite inverse relationship between the abundance of water and the lack of water in the streams of northern and southern China.

This paper was read at the Hydrography Special Discussion Conference which the China Geographic Society held in November 1962.

Author's Affiliation: Bureau of Hydrography, Minister of Water Conservancy and Electric Power.

POU Kua-jen (4535/0948/0088)

"The Motion of Suspended Sediment and the Computation of Aggrading and Degrading Processes of Tidal Flows"

Peiping, Shui-li Hsueh-pao (Chinese Journal of Hydraulic Engineering), No 4, Aug 63, pp 13-23

Translation of Chinese Abstract: This paper utilizes the equilibrium principle of unstable, water transported sand and discusses the law of the period of sand content and shoreline change in tidal flow. It also present a calculated formula. On the basis of this formula, it presents a method to calculate the tidal change of shape of river mouths and river beds. It also discusses the calculation of the change of shape of river beds and changes the shoreline, the sand content in rivers without tides, and other problems.

Author's Affiliation: Nanking Institute of Hydraulic Engineering (Nan-ching Shui-li K'o-hsueh Yen-chiu-so, 0589/0079/3055/0448/4430/1331/4282/4496/2076)

HSU Hsieh-ch'ing (6079/0588/1987)
OU-yang Lan-hsun (2962/7122/5695/5651)

"The Pressure Distribution Along Boundary With Circular Arcs"

Peiping, Shui-li Hsueh-pao (Chinese Journal of Hydraulic Engineering), No 4, Aug 63, pp 25-37

Text of English Abstract: The present investigation is concerned with the determination of pressure distribution along curved boundaries formed by circular arcs often found in hydraulic structures. The boundary geometry considered are: (1) semi-infinite pier in closed conduit with head part formed by two circular arcs; (2) isolated circular-arc irregularity on the wall of closed conduit.

Analytical results found by means of conformal transformation were compared with experimental data from wind tunnel and water tunnel tests and with those obtained in previous investigations. Data on incipient cavitation number found from water tunnel tests and from published papers are compared with some of the calculated — C_{pmin}. Agreement is good.

(continuation of Shui-li Hsueh-pao, No 4, 1963, pp 25-37)
The analytical work on this paper on this paper was done by HSU; the calculations and experimental work were done by OU-YANG. These authors also expressed thanks to LIU Ch'ang-kuei (0491/7022/6311) and CH'EN Chin-teng (7115/3866/4583) who participated in the work.

This paper was first read at the 1962 nationwide science discussion conference on the problem of high-speed flow in hydraulic structures.

Authors' Affiliation: Both of Institute of Hydraulic Engineering, Research Academy of Hydraulic Engineering and Hydroelectric Power.

CH'IU Ch'in-pao (8002/0530/1405)

"Determination of the Ultimate Bearing Capacity of Foundation and the Stability of Structure on the Soft Ground"

Peiping, Shui-li Hsueh-pao (Chinese Journal of Hydraulic Engineering). No 4, Aug 63, pp 38-45)

Translation of Chinese Abstract: This paper, according to precise sliding curves representing weightless, loosely arranged media under load, takes up analysis methods and provides a formula for calculating simultaneous extreme loads at a horizontal and vertical plane, on a soft earth foundation. It also presents a table of coefficients which is easily applied in the calculations.

Author's affiliation: Ch'eng-tu Engineering College.

CHANG K'ai-chi (1728/7030/3444)

"Comments on Some Projects From the Peiping Housing Design Competition in 1963"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 7, Jul 63, pp 1-5

Abstract: This paper discusses several designs which were submitted to a contest conducted by the Peiping Civil Engineering Society in April 1963. About ten designs are considered, and their characteristics are praised or criticized.

HSU Shang-chih (1776/1424/1807)
FENG Liang-t'an (7458/5328/2905)
P'AN Ch'ung-ch'i (3382/0339/0796)
TSOU Chien-nung (6760/1696/6593)

"Tibetan Dwellings on the Snow-Clad Mountains and Meadows"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 7, Jul 63, pp 6-11

Abstract: This paper reviews the architecture and some of the structural details of residential dwellings in Tibet.

WANG Kuo-yu (3076/0948/3842), HUANG Pao-ch'ing (7806/1032/7230), and LI Tao-tseng (2612/6670/1073) directed the research work for this paper.

CHANG Yao-tseng (1728/5069/2582)

"The Problem of Auditorium Floor Slope in Theater Design"

Peiping, Chien-chu-Hsueh-pao, (Journal of Architecture), No 7, Jul 63, pp 12-14

Abstract: This paper considers the planning of floor slope in an auditorium by means of diagram method, solving of similar triangles, and empirical method. It is pointed out that each of these methods will give a slightly different solution.

SUN Chih-hai (1327/3112/3189)
CHU Jung-ya (2612/2837/0068)

"The Reconstruction Project for the Shanghai Municipal Auditorium"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 7, Jul 63, pp 15-16

Abstract: This paper describes the renovation of a 1,900-seat capacity auditorium in Shanghai which was completed in late 1960.

CHIN Ching-yuan (6855/4842/0337)

"The Problem of Planning and Alloting Open Green Area"
Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 7, Jul 63, pp 17-18

Abstract: This paper analyzes the cost and amount of utilization of various parks and types of parks. The article determines that 3-4 square meters of public green space per person in an urban area is a reasonable and economical figure.

CH'EN Hsiao-k'un (7115/1321/1024)

"Architecture in Cambodia"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture,) No 7, Jul 63, pp 22-26

Abstract: This paper reviews common styles of architecture in Cambodia, both traditional and modern.

LU Kuei-lin (7120/6311/3829)

"The Design of a Multistory Prefabricated Monolithic Building for a Chemical and Pharmaceutical Plant"

Peiping, Chieh-chu Hsueh-pao (Journal of Architecture), No 7, Jul 63, pp 19-21

Abstract: This paper describes the design and assembly of a building constructed of prefabricated reinforced concrete beams.

HSU Tung-p'ing (1776/2639/1627)
T'AN Chih-min (6223/1807/3046)

"Suggestions Concerning Storage Capacity and Closet Dimensions for Dwelling Rooms"

Peiping, Chieh-chu Hsueh-pao (Journal of Architecture) No 7, Jul 63, p 27

Abstract: This paper provides data and diagrams to assist in designing convenient storage space for living quarters.

HSU Chieh-san (6079/0094/0005)

"Some Problems of General Hospital Design"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 9, Sep 63 pp 1-7

Abstract: This paper discusses several problems of layout, traffic flow, and services at a large general hospital. It is accompanied by several drawings.

SUN Hsiang-shou (1327/4382/1108) of Chekiang Medical University and T'UNG Ching-yu (4547/4544/2509) of Chekiang University reviewed and corrected this article.

CHOU Jen-chung (0719/0086/1813)
K'ANG Sen (1660/2773)

"Study on the Types of Auditorium for Wide-Screen Cinema"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 9, Sep 63, pp 8-16

Abstract: This paper discusses the various factors which must be taken into consideration in designing a theater for the viewing of wide-screen motion pictures. The paper is accompanied by drawings and tables of design data.

MA Hao-jan (7456/3185/3544)
CH'ANG Chun (1603/7486)

"A Mess Hall With Hyperbolic Paraboloid Shell Roof"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 9, Sep 63, pp 17-19

Abstract: This paper describes a type of roof structure which has been used in the construction of five dining halls since the end of 1962. It also describes the layout and design of the buildings, as well as the methods of construction. It is accompanied by several photographs of the work in progress.

LIU Iun-ho (0491/0061/7729)

"A General Description of Cuban Architecture"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 9, Sep 63, pp 20-27

Abstract: This paper describes some of the recent public and residential construction in Cuba. The article is accompanied by several photographs and diagrams.

"On the Design Problem of Administration-Quarters for Machinery Plants"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 10, Oct 63, pp 1-2

Abstract: This paper presents a general discussion on the need for administrative quarters in various machinery plants. It relates the problems in the designing of these quarters. It also discusses dimensions that can be used for these quarters.

Authors' Affiliation: The authors of this paper are from the Industrial Architecture Group, Peiping Society of Civil Engineers and Architects.

YU Tso-min (0151/0155/3046)

"Architectural Treatment of Thermal Power Plants"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 10, Oct 63, pp 3-9

Abstract: The introduction to this article states that the architecture on power plants is the same as other industrial architecture. The article lists three important conditions in architecture for power plants. These are as follows: (1) environmental conditions, (2) the technolgoical plan, and (3) the techniques of arrangement, materials, and building.

The artistic treatment of power plant architecture is discussed in four parts.

Numerous photographs of power installations and plants with captions accompany this article.

WEN Ching-hui (2429/3237/1798)

"The Problem of Leakage of Wooden Celrestory Windows for Factories"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), Nov 10, Oct 63, pp 10-12

Abstract: The first part of this paper is concerned with several types of wooden windows. Positioning of the windows and an analysis of causes of leakage are discussed.

In the last part of the paper, several opinions on changing the designs currently in use are discussed.

Numerous sketches of the types of windows and positions for windows are included in this article.

CH'ENG Jui-shen (4453/3843/6500)

"Design of Lecture Halls for Universities"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 10, Oct 63, pp 13-18

Abstract: This article discusses the location of lecture halls in universities, position and arrangement of seats, visual conditions, lighting, acoustics, and furnishings of lecture halls.

Sketches and photographs accompany this article.

HAN Nan-hsing (7281/0589/2502)

"prevention of Condensation for Indoor Warm-Water Swimming Pools"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 10, Oct 63, pp 19-21

Abstract: This paper discusses special characteristics of warm-water indoor swimming pools, the utilization of warm air in solving the problem of condensation, and conclusions and several opinions by the author. Graphs, tables, and sketches accompany this article.

LI Shou-k'ang (2621/1108/1660)
HU Hsin-liu (5170/2450/0362)

"Experiences in Prefabricated Housing in North Korea"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 10, Oct 63, pp 22-29

Abstract: This article is a general discussion on prefabricated structures in North Korea. Designing and building experiences are covered by the authors.

Tables, sketches, and photographs of modern architecture in North Korea accompany this article.

CHIANG Chen-tung (5592/7201/2639)

"The Analytical Solution of the Thermal Building-up Process of a Short-Circuited Induction Motor With the Aid of a Two-Component System"

Peiping, Scientia Sinica, Vol 13, No 1, Jan 64, pp 149-158

Excerpts of German Abstract: On the basis of previously established theoretical and experimental work, a practical method is suggested for computing the thermal building-up process of a short-circuited induction (squirrel-cage) motor operated in any intermittent regime. A standard design of induction motor with ribbed housing was selected, since it is commonly used in intermittent operation. The methods hereto fore used, which assume that individual components of the machine heat up and cool down in accordance with simple exponential functions, produce results that deviate appreciably from actual conditions. In contrast to the usual solution, the solution obtained here disregards the influence of losses through temperature change and the interaction of thermal capacities of individual components. The reduce equivalent circuit diagram retains only two lossy components, namely, the copper of the stator and the iron of the stator.

This paper was received for publication on 19 April 1963.

Author's Affiliation: Institute of Electrical Engineering, Chinese Academy of Sciences.

Chemistry

CH'EN Han-hsi (3088/0698/3556)

"Wuantitative Determination of Zirconium in Alloys and Ores With the Aid of P-Iodomandelic Acid"

Peiping, Hua-hsueh Hsueh-pao (Acta Chimica Sinica), Vol 28, No 4, Aug 62, pp 231-235

Text of Russian Abstract: A new gravimetric method has been developed for the quantitative determination of zirconium with the aid of p-iodomandelic acid. The sensititivity of this method of determining zirconium is much higher than the mandelate method. In selectivity of the reagent, it is also not inferior to mandelic acid.

Study of the composition of p-iodomandelic acid formed with a zirconium compound indicates that the zirconium p-iodomandelate, precipitated from Zn nydrochloric acid, closely approximates the formula $Zr(C_8H_6IO_3)_4$. A thermogravigram was taken of the zirconium p-iodomandelate. This evidences that the compound is stable up to 250 degrees. After 500 degrees, the compound is observed to decompose into zirconium dioxide. ZrO_2 is the weighable form.

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The derived method enables determining the macro- and micro-quantities of zirconium in various forms (for instance, in zircon, eudialyte, steel, zirconium bronze, and alloys on the basis of chrome-molybdenum-aluminum) with satisfactory results.

The author expresses thanks to I. P. Alimarin, a professor and director of the Chemistry Laboratory at the Moscow University, USSR, under whose direction the research for this paper was done.

This paper was received for publication on 13 January 1962.

Author's Affiliation: Chemistry Department, Nankai University.

TS'AI Ch'i-jui (5591/0796/3843)

"Estimation of Repulsive Exponents in the Calculation of Lattice Energies of Ionic Crystals"

Peiping, Scientia Sinica; Vol 13, No 1, Jan 64, pp 47-60

Excerpts from English Text: Reliable compressibility data are not available for most crystals, and the estimation of the repulsive exponents for these crystals still remains a problem. The author of this paper states three reasons why he cannot justify M.L. Huggins' assumption that the average value (0.345Å) of the repulsive exponents for crystalline alkaline halides can be used for other types of ionic crystals. The object of this paper is to investigate whether some simple relation can be found which will enable estimating the repulsive exponents directly from the effective nuclear charges of the anions involved, without recourse to crystal data. If this can be done, it will greatly increase the reliability and applicability of such lattice-energy calculations and will also enable using some simplified forms of the Born-Meyer equation. Section II of this paper discusses the Born-Meyer method and estimation of repulsive exponents; III, the repulsive exponents of alkaline halide crystals; IV, the repulsive exponents and lattice energies of the neon-group van der Waals crystals and the ρz* rule; V, repulsive exponents and lattice energies of the alkali and alkaline-earth oxides and sulphides; VI, repulsive exponents and lattice energies of the crystalline alkali hydrides. Seven tables are included. In the

(continued)
discussion in Section VII, the author concludes that the ρ z* rule (for isoelectronic atoms and anions) still holds over a wide range of ρ values. The author details the findings of several scientists, including L. Pauling, and points out wherein their results differ. The essential part of this paper is based upon a report presented at the research conference of the University of Amoy, held in the Spring, 1957.

The author is indebted to T. L. Chen of Kirin University for a reference concerning ρ values and to K. H. Huang for reading and scrutinizing the manuscript and checking some of the results.

This paper was first published in Chinese in Univ. Amoiensis Acta Sci. Nat., Volume 9, No 1, 1962, pages, 1-12.

Date span of the 50 references is 1927-1962.

Author's Affiliation: Department of Chemistry, University of Amoy.

ORGANIZATIONS AND CONFERENCES

1. Forthcoming Analytical Chemistry Conference

The Analytical Chemistry Committee of the Chemical Society of China plans to hold a scientific conference on analytical chemistry sometime during September 1964 and is soliciting technical papers for that meeting. As stated, papers must report original work undertaken in China. Reports of work conducted in foreign countries, as well as papers which have already been published or were presented at a national conference, will not be accepted. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 1, Jan 64, inside back cover)

2. Conference of Chinese Society of Pedology

The Chinese Society of Pedology held its Third Annual Academic Science Conference for 1963 in Shenyang (Mukden) on 15-24 August 1963. Attending this meeting were 91 official representatives, 32 auditors, and over 100 visitors. A total of 277 papers were presented and discussed by 5 different groups at the conference. These groups were chiefly interested in soil physiochemistry; soil biology; soil geography, formation and classification; agro-chemistry; and soil cultivation and improvement. A tentative system for the classification of soils in China was also drawn up at this conference. (Peiping, T'u-jang Hsueh-pao [Acta Pedological Sinica] Vol 11, No 3, Sep 63, p 339)

3. Meeting on Soil Physiochemistry

On 11-18 June 1963, the Chekiang Society of Soils and Fertilizer met in Hangchow to discuss special problems in soil biochemistry. More than 100 representatives from the Chinese Academy of Sciences, Chinese Academy of Agricultural Sciences, the research field and higher agricultural academies and schools participated in this meeting. A total of 39 papers were presented at this meeting, at which time the participants discussed these papers and also brought up related problems in connection with China's future development and research work in the field of soil physiochemistry. (Peiping, T'u-jang Hsueh-pao [Acta Pedologica Sinica], Vol 11, No 3, Sep 63, p 340)

4. Meeting on Soil Classification

On 11-18 June 1963, some ten representatives and more than 20 auditors attended a meeting in Nanking, at which time the entire soil classification system of China was revised in order to meet today's urgent soil requirements everywhere. In their discussion, the delegates all agreed that the nomeclature of known soils and soil industries can follow those already commonly used; new classification of soil may follow the names of origin or, when appropriate use their popular names; and the complete classification series, as a rule, should be based on the following categories: black, red, patty, brown, and tumulus soils. (Peiping, T'u-jang, Hsueh-pao [Acta Pedologica Sinica], Vol 11, No 3, Sep 63, p 341]

5. Geomorphology Conference

The First Geomorphology Conference of higher-level schools directly s subordinate to the Ministry of Educstion was held recently at Nanking University. Representatives of 25 higher-level schools, 11 research organizations, and 5 operating units participated in the conference. The conference considered three major subjects: river and regional geomorphology, river mouth and seashore geomorphology, and Quaternary geology and glacial geomorphology. (Peiping, Kuang-ming Jih-pao, 6 Feb 64, p 3)

6. Second National Crop Breeding Conference

The Chinese Academy of Agricultural Sciences recently held the Second National Crop Breeding Work Conference. During the course of the conference, 136 improved strains of 22 kinds of crops were proposed to concerned departments for propagation in suitable regions. (Peiping, Chin-jih Hsin-wen, 29 Jan 64, p 8)

7. National Stockpile Conference

The first work conference of the National Stockpile Committee (Ch'uan-kuo Ch'u-wei, 0356/0948/0326/1201) was held from 10 to 21 September 1963 in Peiping. Participating in the conference were all the members of the National Stockpile Committee; field directors; chief administrative officers of the National Stockpile Committee in the various provinces, cities, and autonomous regions; and chief engineers, outstanding technologists, and others representing the State Planning Commission, State Economic Commission, State Scientific and Technological Commission, and the Departments of Geological Exploration, Mine Administration and Design [of the Ministry of geology?]. The Ministry of Geology was represented personally by Vice-Minister SUNG Ying (1345/2019), who concurrently is a member of the Board of Directors of the National Stockpile Committee. During the conference, Ho Ch'ang-kung (0149/7022/1562), also a Vice-Minister of Geology, gave important instructions in stockpiling work.

Besides discussing the subject of "The Basic Situation and the Objectives Henceforth of the Stockpiling Work," the National Stockpile Committee deliberated on the work papers "On Summing Up the Actual Work Done on Re-examining the Amount of Mineral Products Stockpiled in the Country" and "Viewpoints of National Stockpile Committee on Advanced Steps in Setting Up Standard Classifications for materials Stockpiled in Large Quantity."

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The conference also held serious discussions on the important subjects of geological exploration and mine construction. At this time, the conferees stressed the need to conserve mineral resources. In the course of this conference, they pondered over the various problems of controlling industrial goals in order to calculate the amount of stockpiling needed. (Peiping, Chung-kuo Ti-chih [Chinese Geology], No 10, 1963, p 33) (CONFIDENTIAL)

8. Geological Symposium

On 28 October 1963, the Ministry of Geology held a symposium on mineral sylvite [potassium chloride]. Participating in this symposium were the Director of the State Geological Bureau (Ch'uan-kuo Ti-chih Chu, 0356/0948/0966/6347/1444) and chief [geological engineers and engineers in charge of various provincial offices. Also attending this meeting in Peiping were some local geological experts, chemical engineers, and representatives of the Ministry of Petroleum Industries. Vice-Minister of Geology, HSU Chieh (6079/2638), appeared before this group to give important instructions. A report was delivered by Prof YUAN Chien-ch'i (5913/6015/7851), who recently returned from an inspection tour of the USSR and East Germany. In his report, YUAN revealed the geological work done in the fiel of mineral sylvite in the Soviet Union, East Germany, and in China.

At this meeting, all the conferees agreed that within a few years China would be able to discover larger deposits of mineral sylvite, which is urgently needed by industries. At the same time, they recognized the complexity of the situation in this kind of geological work. For this reason, they believed that to hasten the discovery of more sylvite deposits, most geologists must cooperate their work closely with the petroleum-geological teams and other specialists in this field.

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As a result of this meeting, the field of geological work in mineral sylvite would be greatly expanded and extended into other fields such as supplying potash fertilizer for agriculture. (Peiping, Chung-kuo Ti-chih [Chinese Geology], No 11, 1963, p 33 (CONFIDENTIAL)

9. Symposium on Gold and Platinum Ores

More than 40 technical papers were presented at a symposium held in Lanchow on 4-15 April 1963. This meeting, sponsored by the Ministry of Geology, was mainly for the purpose of exchanging experimental results in chemical analysis of gold and platinum ores, reporting on new work techniques, passing on good points for future research work on the subject of compositions of platinum and metallic mineral deposits, and evaluating mineral deposit explorations for the benefit of various industries. (Peiping, Chung-kuo Ti-chih [Chinese Geology], No 10, 1963, p 25) (CONFIDENTIAL)

MANPOWER AND EDUCATION

1. Development of Education in Sinkiang

The various types of high-level schools which are newly established in Sinkiang include industrial, agricultural, cultural, social science, medical, and teaching institutions.

Prior to 1949, Sinkiang had a dilapidated Sinkiang Academy which had only one run-down building with 30 or 40 chairs for more than 300 students, and the equipment at the Academy was broken and in desperate need of repair. After 1949, the government assigned many teachers to the school and used generous amounts of capital and equipment for improvement. This Academy now has been transformed into Sinkiang University, which now has eight educational buildings. In these buildings are housed seven departments with ten fields of specialization. These departments have more than 80 laboratories, some equipped with automatic spectographs, electronmetric titrations, electronmicroscopes, semiconductors, atomic physics, and other modernized equipment and precision instruments.

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Other high-level institutions in Sinkiang include the Sinkiang Medical College, Sinkiang Pa-i [1 August] Agricultural College, the Sinkiang Industrial College, and the Sinkiang Middle Normal School.

Each year, China sends many teachers to Sinkiang to work, and more than 20 provinces and municipalities throughout the country send equipment.

Now there are more than 200 teachers of minority races at various high-level institutions throughout Sinkiang. There are more than 6,400 students in the high-level institutions in Sinkiang, including 2,400 students at Sinkiang University. Of the total number of students, 31 percent are of minority nationalities. (Canton, Chung-kuo Hsin-wen, 24 Jan 64, p 6)

2. Higher-Level Institutions in Kwangtung Province

Kwangtung Province now has 19 high-level institutions, whereas in 1957 it had only 7. Since 1957, the number of students has increased 120 percent. In addition, Kwangtung Province has 35 spare-time schools with more than 13,000 students. Hsiao Chun-ying (5618/7165/5591) is Director of the Bureau of Education in Kwangtung Province.

From 1951 to 1963, Kwangtung Province has graduated more than 48,000 students. From 1952 to 1963, Chung-shan University graduated four times as many students as the number graduated from 1926 to 1949 and, since 1949, has constructed school buildings totaling 143,000 square meters.

The Chung-shan Medical College has, in addition to specially used laboratories for scientific research, more than 80 different types of laboratories used by the students.

From 1958 to 1964, Chi-nan University has acquired a faculty of more than 400 teachers, and school buildings exceed 60,000 square meters.

From 1959 to 1964, the teachers in Kwangtung Province have written more than 12,070 papers. (Canton, Chung-kuo Hsin-wen, 20 Jan 64, p 7)

3. Growth of Higher Education in Tientsin

Since the liberation, there has been a great concentration of higher education in the Pa-li-t'ai section on the outskirts of Tientsin. At present, there are six higher-level schools in this area, including Nankai University, Tientsin University, Tientsin Normal College, and Hopeh University. Tientsin University is a polytechnic industrial university with 7 departments and 28 special fields. It has a campus of 1,150,000 square meters, and its buildings have a total area of more than 230,000 square meters. There are also about 70 modern, well-lit laboratories and practice workshops. There are a total of more than 12,000 personnel at this school, including instructors, students, administrative personnel, and laborers. The school has trained about 8,000 persons in the 6 years between 1958 and 1963.

Nankai University at present has more than 30 buildings and more than 6,000 students. The area of laboratories at this school has reached more than 9,800 square meters, and the school has more than 1,000 instructors. (Canton, Chung-kuo Hsin-wen, 12 Feb 64, p 9)

Accomplishments of Chinese Higher Education

Since the establishment of the People's Republic of China, particularly since 1958, there have been unprecedented advances and improvements in Chinese higher education. At present, China has a total of about 138,000 instructors in higher-level schools, about 7 times the number in 1949. The number of graduates from higher-level schools has also increased each year since the establishment of new China, and by 1963, a total of 1,160,000 graduates had been trained, 70 percent of them since 1958. In addition to this, more than 1,000 graduate students were graduated in 1963 and more than 12,000 since the liberation. (Canton, Chung-kuo Hsin-wen, 19 Jan 64, p 8)

4. Large Number of Laboratories Established in Peiping Schools

Within a few years, the many newly founded high-level schools in Peiping will have built many new laboratories to meet the needs of these schools.

In 1958, China University of Science and Technology had two laboratories, general physics and general chemistry. Now, 57 basic course, specialized basic course, and specialized course laboratories have been established. Of these, the nuclear physics laboratory, radio chemistry laboratory, electronic computing machine laboratory, and 19 other laboratories have now reached a modern level of science and technology. The low-temperature technological laboratory, which was constructed by the teachers and laboratory personnel, is now able to carry out five experiments. Such experiments as superconductivity transition and low-temperature heat conductivity have never before been conducted in China. There are more than 400 oscilloscopes for student use at China University of Science and Technology.

Now, experiments for basic-level courses, specialized or professional basic courses, and special courses have been initiated at the laboratories of these newly instituted schools. (Canton, Chung-kuo Hsin-wen, 20 Jan 64, p 6)

5. Medical College Professors Honored

Chung-shan Medical College held a symposium recently honoring 11 professors who have been engaged in academic work for 30 years or more. Among the esteemed were noted pathologist LIANG Po-ch'iang (2733/0130/1730), for his work in nose and throat cancer; prominent radiologist HSIEH Chih-kuang (6200/1807/0342), for his contributions toward cancer prevention; parasitologist CH'EN Hsin-t'ao (7115/1800/7118), for his work in the prevention of schistosomiasis; and Prof CH'EN Yao-chen (7115/5069/4176), an ophthalmologist, who performed cornea transplants which were 70 percent successful on more than 150 blind persons in distant mountainous areas. (Canton, Chung-kuo Hsin-wen, 15 Jan 64, p 11)

6. Political Role of Scientists in Kwangtung Province

The following persons, all associated with natural sciences, medicine, pharmacology, and public health, have recently been elected members of the Third Kwangtung Provincial Committee of the Chinese People's Political Consultative Conference (CPPCC).

Natural Sciences

WANG Tsung-ho (3769/1350/0735)
CH'U Shou-k'ang (0575/1108/1660)
SHUI Chien-feng (3055/1696/1144)
PAI Yun-p'eng (4101/0061/7720)
IU Chien-ming (4151/7003/2494)
SHIH Chun (1597/6511)
CHU Chien-ch'ing (2612/0256/0615)
WU Cho-fu (0124/0587/1381)
TU Min (2629/2404)
WANG Wei (3769/0251)
FENG Yao-tsung (7458/5069/1350)
FANG Ti-t'ang (2455/2769/2768)
PAI Feng (4101/3536)
LAO Ming-yang (5071/2494/2799)
LIU Tzu-ts'e (0491/1311/4595)
KUAN K'ai-hsing (7070/7030/5281)
SUN Hsi-t'ung (1327/1585/0681)
CHU Ying-tsan (2612/7336/6363)
HO Hsien-chang (0149/2009/4545)
CHI Tun-hua (1323/2415/0553)
LI Shih-mei (2621/1193/5019)
CHANG Kuang (1728/0342)
LIN Liang-t'ien (2651/5328/3944)
CHOU Jen-chan (0719/0088/3115)
CH'EN Chia-t'ien (7115/1367/1131)
FEI Hung-nien (6316/7703/1628)
JUNG Tsu-yu (1369/4371/4416)
MEI Ching-ts'ai (2734/2529/2088)

HSU Ch'eng-wen (6079/2052/2429)
CHU Hui-chao (2612/1920/3564)
HO Chu (0149/4555)
LI Wen-ta (2621/2429/6671)
WANG Pi-t'ing (3769/1732/1656)
FENG Ping-ch'uan (7458/4426/6898)
HSIEH Yang-shan (0673/0111/1472)
LIN Sun-hsiang (2651/1327/3276)
CHOU Yung-fa (0719/3057/4099)
CH'EN Wei-ch'in (7115/0251/2953)
CHUNG Ming-hui (6945/2494/6540)
HSU Meng-hua (1776/1125/5363)
MO P'ei-chieh (5459/1014/2638)
HUANG Ch'ang-hsien (7806/2490/6343)
HSING Lu-chung (1630/4389/6945)
HSIAO Hsiang-hui (5618/4371/1798)
TUNG Chen-yuan (5516/2182/0337)
HSIEH Huan-t'ing (6200/3562/1656)
T'AN Po-k'ang (6223/0130/1660)

HUANG Ch'en-ying (7806/5256/5391)
HUANG Hui-kuang (7806/1920/0342)
TSOU Hsi-wei (6760/6932/3555)
TS'ENG Shih-ying (2582/4258/5391)
P'AN Mao-sheng (3382/2021/4141)
LI Chia-ho (0448/1367/0735)
CHANG Chi-chun (1728/0366/0193)
YANG Chia-lu (2799/1367/4389)
CHANG Ch'ing-chien (1728/3237/7003)
LIN Hsi-chih (2651/1585/0037)
CH'EN Po-ch'i (7115/0130/7871)
LO T'ung-chien (5012/1749/7003)
CHUNG Lin (6945/7792)
HSU Hsueh-hsieh (1776/1331/3428)
HUANG Yuan-ch'iang (7806/6678/1730)
HUANG Chi-fang (7806/4949/5364)
K'ANG Jo-yu (Female) (1660/5387/1946)
LAI Chung-yuan (6351/0112/0337)

Medicine, Pharmacology, and Public Health

MA Shih-chun (7456/0013/7486)
PAI Shih-en (4101/2457/1869)
WU Hsueh-tsung (0124/1331/1350)

HSU T'ien-lu (6079/1131/4389)
CHU Ching-hsiu (2612/2417/0208)
LI Yu-chen (Female) (2621/3768/3791)

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CHU Shih-hui (2612/1597/2526)
LI Kuang-hai (2621/1684/3189)
WU Hua-min (0702/5478/3046)
HO Hsiao-sheng (0149/2556/3932)
OU Hsiao-k'ai (2962/2556/7030)
CHANG Chao-yuan (1728/6856/0337)
WANG Pen-chen (3769/2609/3791)
LIU Chih-ying (0491/1807/5391)
SU Chien-chin (5685/0256/0093)
SUNG Chan-ch'i (1345/1455/1477)
CHANG T'ung-chiu (1728/0681/0036)
CH'EN Jo-sun (7115/5387/1327)
CH'EN Ai-hsin (Female) (7115/1947/1800)
CH'EN Yao-chen (7115/5069/4176)
CHOU Jung-hsien (Female) (0719/2837/0341)
YANG T'eng-hsing (2799/7506/5281)
HSU T'ien-en (1776/1131/1869)
HUANG Ch'i-wen (7806/4860/2429)
CH'ENG Kuan-shu (4453/6034/2885)
TS'AI Meng-k'ang (5591/1322/1660)
(Canton, Nan-fang Jih-pao, 24 Dec 63, p 3)

JUAN Chi-min (7086/3444/3046)
HO Shu-yeh (Female) (0149/3219/7306)
CHANG Hsiao (1728/1321)
CHANG Hsiao-pai (Female) (1728/5135/4101)
FENG Chih-fu (Female) (7458/6347/1133)
HSU P'eng-ch'eng (6079/7720/4453)
LI Li-wan (2621/4539/5502)
LI Fu-hai (2621/4395/3189)
CH'EN I-i (7115/0076/3015)
LIN Hsing-wei (2651/2622/0953)
LIANG Nai-chin (2733/0035/3160)
T'ANG Wen-ming (0781/2429/6900)
TS'AI Tzu-chen (5591/1311/1017)
CH'EN Shou-k'ang (7115/1108/1660)
T'ANG Tse-kuang (3282/3419/0342)
HSI Wei-hsun (3156/4850/6676)
LIANG Lang-hao (2733/3535/4110)
HUANG Shu-yun (7806/0647/4596)
HUANG Ai-lien (Female) (7806/1947/1670)

7. Electric Power College Celebrates Fifth Anniversary

On 1 November 1963, the Peking Electric Power College celebrated the fifth anniversary of its founding. This industrial university was founded in 1958, during the period of the Great Leap Forward, to provide technicians for the rapidly expanding electric power industry. In the past 5 years, the quality of instruction at this college has improved steadily. Physical resources have also improved a great deal. In the summer of 1963, the first class of 280 students was graduated, and the new graduates were assigned to work in electric power plants in such places as Inner Mongolia, Heilungkiang, Yunnan, and other border areas, as well as in research units and in schools in the Peiping area. (Peiping, Pei-ching Wan-pao, 2 Nov 63, p 2) (CONFIDENTIAL)

NEW PUBLICATIONS AND BOOK REVIEWS

1. Metallurgical Publications

The following publications were published by the Shanghai Scientific and Technological Publishing House:

Yu-se Chin-shu 2 Yeh-chin I-ts'ung (Nonferrous Metals - 2 - Metallurgical Translations), by T'ien Keng-hsi (3944/1649/6932), Price 0.80 yuan;

Yu-se Yeh-chin Wu-li Hua-hsueh Ti-erh-ts'e (Physical Chemistry in Nonferrous Metallurgy - Second Edition), by CHIANG An-jen (5592/1344/0088) and YANG Ch'ien-chih (2799/0241/1807), Price 1.00 yuan (Peiping, Jen-min Jih-pao, 5 Jan 64, p 6)

2. Book on Computer Technology

The K'o-hsueh Ch'u-pan-she (Science Press) has announced that it plans to publish, in May or June 1964, a book entitled Tz'u-hsin Ts'un-chu-ch'i (Magnetic Core Storage Devices), by Huang Yu-heng (7806/3768/3801). The price of this book is estimated to be 1.30 yuan and 1.80 yuan, respectively, for soft and hard cover copies, and it can be ordered through any local Hsin-hua (New China) bookstore. (Peiping, Jen-min Jih-pao, 1 Feb 64, p 6)

3. High Polymer Publication

Chung-kuo K'o-shueh-yuan Kao-fen-tzu Hsueh-shy Hui-i Hui-k'an 1962 Nien (Papers of the Chinese Academy of Sciences High Polymer Science Conference-1962), edited by the Secretary of the Chinese Academy of Sciences High Polymer Science Conference, will be published in April or May 1964 by Science Press. The price will be 1.10 yuan. (Peiping, Jen-min Jih-pao, 10 Jan 64, p 6)

4. University Journal Resumes Publication

In December 1963, Nankai University resumed publication of the following journals: Nan-k'ai Ta-hsueh Hsueh-pao Tzu-jan K'o-hsueh (Journal of Nankai University-Natural Sciences); Nan-k'ai Ta-hsueh Hsueh-pao Che-hsueh She-hui K'o-hsueh (Journal of Nankai University-Philosophy and Social Sciences); and Nan-k'ai Ta-hsueh Hsueh-pao Ching-chi K'o-hsueh (Journal of Nankai University-Economic Sciences). (Peiping, Jen-min Jih-min Jih-pao, 17 Jan 64, p 6

5. Announced Publication of 1964 College Journal

Ch'ing-hua Ta-hsueh Hsueh-pao (Journal of Tsinghua University will be published quarterly during 1964. The price will be 4.80 yuan. (Peiping, Jen-min Jih-pao, 17 Jan 64, p 6)

6. Publications on Economic Insects

Chung-kuo Ching-chi K'un-ch'ung Chih Ti-wu-ts'e Ch'iao-ch'ih-mu P'iao-ch'ung-k'o (China's Economic Insects -- Volume 5 -- Order Elypra, Family Coccinillidae), by LIU Sui-tung (0491/4378/2639), published by Science Press, December 1963, Price 1.90 yuan;

Chung-kuo Ching-chi K'un-ch'ung Chih Ti-ch'i-ts'e Lin-ch'ih-mu Yeh-o-k'o (China's Economic Insects -- Volume 7 -- Order Lepidoptera, Family Noctuidae), By CHU Hung-fu (2612/1728/1788), published by Science Press, December 1963, Price 1.50 yuan. (Peiping, Jen-min Jih-pao, 11 Jan 64, p 6)

7. Scientific Publications

The following books have been published recently by the Shanghai Scientific and Technical Publishing House:

Tsu-tung T'iao-chieh Li-lun Chi-ch'u (Basis for the Automatic Regulation Theory), by Liu Pao (0591/6283), price 3.55 yuan;

Shih-yung Kan-tsang Ping-shueh I-shih Chin-hsiu Ts'ung-shu (Applied Hepatopathology-Advanced Study for Physicians), by SUN Hung-hsun (1327/1347/6064), price 4.00 yuan;

8. New Publication Previews Scientific and Technical Books

K'o-chi Hsin-shu-mu (List of New Scientific and Technical Books) is a periodic listing of scientific and technical publications which are to be published overtly in Peiping and Shanghai "in the near future." It is designed especially for scientific research units, higher institutions of learning concerned with science, industrial enterprises, and specialists. The first two issues of this new publication have been published by Hsin-hua Bookstore, Peiping. (Shanghai, Tien ShihOchieh [Electrical World], Vol 16, No 10, Oct 63, p 383) (CONFIDENTIAL)

9. New Electronic Periodical

In November and December 1963, the Shanghai Electronic Society will publish two monthly issues of Tien-tzu Chi-shu (Electronic Techniques) on a trial basis. Beginning in January 1964, the new journal will be published on the eighth day of each month.

Tien-tzu Chi-shu is an intermediate-level periodical designed especially for scientific and technical personnel with at least secondary-level education, or its equivalent, as well as for technicians, cadres, teachers, and students. It will carry information advances in electronics in China and other countries and provide opportunity for interchange of experiences. There will be systematic science lectures, news items, and a readers' column within its pages.

To be sold at 0.30 yuan, each issue will have about 48 pages. (Shanghai, Tien Shih-chieh [Electrical World], Vol 16, No 10, Oct 63, p 379) (CONFIDENTIAL)

FOREIGN TRAVELS AND CONTACTS

North Vietnam Awards Chinese Specialists

On 11 January 1964, the government of North Vietnam presented the Labor Award of the Democratic Republic of Vietnam to 36 Chinese specialists and praised them for helping North Vietnam construct the Thai Nguyen Iron and Steel Combine and the Thai Nguyen Power Plant.

The Vice-Minister of Heavy Industry of North Vietnam, Vu Anh, represented the government of North Vietnam at the presentation and conferred the labor awards on the Chinese specialists.

LIU Yuan (0491/3293) and HOU Hsi-ts'ui (0186/1585/4733), deputy group leader, both of the team of Chinese specialists at the Thai Nguyen Iron and Steel Combine, received the Labor Award First Class of the Democratic Republic of Vietnam, First Class. Second and Third Class Labor Awards were received by 34 other persons.

The Counselor of the Chinese Embassy in North Vietnam, WANG T'ao (3076/3325), and the representative of the Chinese economic mission to North Vietnam, TS'AO Yen-hsing (2580/6056/5887), attended the presentation ceremonies. (Peiping, Chin-jih Hsin-wen, 30 Jan 64, p 3)

MISCELLANEOUS

1. Pharmaceutical Industry in China

As a result of significant successes in the pharmaceutical industry, China has achieved basic self-sufficiency in pharmaceuticals and is exporting a certain quantity of pharmaceutical products.

In 1963, the technical level of the pharmaceutical industry in China rose. Some of the intermediate [semi-finished] products and raw materials which formerly had to be imported could be produced domestically in 1963. The quality of drugs used as raw materials also improved significantly. Some of the medicines exported, such as tetracycline, chloromycetin, and ephedrine hydrochloride, have a relatively high reputation on the foreign market. The quality of medical preparations has improved further.

In 1963, the amount of antibiotics produced was 19 percent higher than in 1962; over ten types of antibiotics were already being mass produced; and a new type "penicillin I," among other new medicines, was produced; and a new type "penicillin I," among other new medicines, was produced. Prior to 1952, China had to import all of its antibiotics; but in 1963, not only did domestic production of antibiotics meet domestic needs, but also the quantity exported in 1963 even surpassed the total quantity imported in 1952.

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The amount of vitamins produced domestically in 1963 was 36 percent higher than in 1962. Sixteen types of vitamins are produced in Shanghai alone. There was also an increase in the proportion of high-grade medical products in 1963. For example, the proportion of such sulphonamides as sulfadiazine and sulfamerazine increased 100 percent over 1962. In 1963, not only did the quality of medicines produced in China increase, but also costs decreased. For example, the cost of producing one ampule of penicillin in 1963 was one third less than in 1957. (Canton, Chung-kuo Hsin-wen, 2 Feb 64, p 5)

2. Growth of People's Liberation Army Hospital 261

The Chinese People's Liberation Army (PLA) Hospital 261 is located in a village on the remote outskirts of Peiping. The hospital began its operations there 13 years ago. At that time, there were only three temples in run-down condition. About a dozen medical workers cut the weeds, removed the trash, repaired the buildings, and began to accept the wounded and sick for treatment. Subsequently, working with very cruded medical equipment, they restored to health a steel worker who had burns covering 70 percent of his body and another worker with a crushed liver. In addition, 40 paralytics treated at PLA Hospital 261 were able to stand up again. This hospital has been recognized by the Rear Services Department for army units in Peiping as "progressive among military hospitals located in villages."

During the 13 years in its present location, PLA Hospital 261 has kept ists cost of operation as low as possible. Shortly after it took over the run-down temples over 100 patients were to be transferred to that hospital for treatment. There was not enough room for them all, so the doctors and nurses worked together and built a 60-room building with mud walls and a thatch roof. Since then they have added buildings totaling more than 7,600 square meters of floor space.

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Until 4 years ago, roentgenographic examination was a problem because there was no electricity. The hospital staff acquired a small generator which had been used in the war years and generated its own electricity. When the hospital needed to establishe its own blood bank, it used an icebox, hauling ice from a distance of more than 10 li. This native blood-bank has been in use for 5 years and has provided over 280,000 cubic centimeters of blood for transfusions with no unfavorable reactions. In 1959, the hospital staff made connection with a new high-tension line which by-passed the hospital and installed electric lights and the necessary outlets.

Although the hospital now operates under improved conditions and with more and better equipment, the staff still practices economy whereever possible. The pharmacy formerly used aluminum bottle caps for liquid medicines, but now it has devised a substitute consisting of two layers of cellophane and a layer of cloth.

Wang Tieh-chin (3769/6993/6855) is the director of this general hospital. He was a leader of a medical squad during the era of the Red Army. (Peiping, Pei-ching Jih-pao, 8 Jan 64, p 2)

3. Electronic Computers

Shanghai's first electronic computor was build in 1958 by the East China Institute of Computation Techniques. For the past year, this computor has solved many complex computation problems for plants, design academies, and scientific institutes in Shanghai and East China. It has been used by the Shanghai Astronomical Observatory to measure standard time. (Canton, Chung-kuo Hsin-wen, 8 Feb 64, p 2)

4. University Contributes to the Prevention of Insect-Borne Diseases

The Parasitology Teaching and Research Section at Chung-shan Medical College in Canton has been conducting research on the prevention of Tsutsugamushi disease, under the direction of Pro CH'EN Hsin-t'ao (7115/1800/7118). Tsutsugamushi disease is a common illness in South China and the Coastal areas. Before the liberation, no one had ever investigated means of preventing it.

In the course of its investigations, the staff of this teaching and research section captured many types of animals, such as rats, bats, ect, and classified the types of ticks and mites found on them. They also collected data on the life cycles of these insects. The data assembled through such detailed observations will provide a basis for the elimination of the disease and has already produced some initial results. In the past few years, this teaching and research section has been pursuing a line of investigation on the elimination of the disease through the application of radioactive isotopes. (Canton, Nan-fang Jih-pao, 26 Nov 63, p 3)

5. Cartographic Conference

In April-May 1963, approximately 80 persons atteded a conference at Wu-hsi, Kiangsu Province, to hear reports on the compilation and production of geological maps of Central-South and East China areas. This meeting was sponsored by a small group of team-leaders in the field of cartography and was attended by representatives of the Research Academy of Geological Sciences (Ti-chih Ko-hsueh-Yen-chiu Yuan) of the Ministry of Geology, the Central-South Institute of Geology, and the East China Institute of Geology; leading cartographers; and other interested individuals of the geological research institutes, academies, schools, and geological teams.

Besides the exchange of experiences in cartography, some geological problems, such as determining the period of granitization of rocks in Souther Kiangsi, Southern Chekiang, Northern Kwangtung, and Northeastern Kwangsi provinces and explaining the technique of map-making and the principle and method of compiling a minerogenetic survey map, were discussed.

After this discussion-meeting, the above-mentioned problems were resolved, opinions were settled, plans for future map-making were formulated and a guarantee of smooth operation of basic undertakings in cartography was enacted. (Peiping, Chung-kuo T'i-chih [Chinese Geology], No 6, Jun 63, p 32) (CONFIDENTIAL)

BIOGRAPHIC INFORMATION

CHANG Shih (1728/3740), Peking Geological College; author of an article, "Blast Furnace 'Cancer.'" (Peiping, K'o-hsueh Ta-chung, No 9, Sep 63, pp 7-8)

CHANG Shih-mei (4545/1102/5019)

WANG Kuang (3076/1684)

Both of the Kiangsi Agricultural College; authors of a note, "The Life History of Some Common Acridids From Kiangsi." HSIA K'ai-ling (1115/0418/7881) determined most of the classifications. (Peiping, K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica], Vol 12, No 5-6, Nov 63, pp 707-710)

CHANG Yu-shang (1728/0645/1424)

TS'AO T'ien-ch'in (2580/1131/2953)

Both of Institute of Biochemistry, Chinese Academy of Sciences, Shanghai; coauthors of a scientific note, "Configurational Changes of Rabbit Tropomyosin in Different Solvents." (Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao [Acta Biochemica et Biophysica Sinica], Vol 2, No 2, Jun 62, pp 120-129)

CHANG Chih-kan, Moscow Geological-Prospecting Institute imeni S. Ordzhonikidze; author of article, "Types of Caves in East China," in Russian. (Moscow, Izvestiya Vysshikh Uchebnykh Zavedeniy, Geologiya i Razvedka, No 2, Feb 64, pp 39-55)

CHAO Chao-ping (6392/2507/8506), author of an article, "Relationship Between Special Land Features and Agricultural Production in Fukien." (Peiping, Ti-li [Geography], No 5, 1963, pp 201-206)

CH'EN Chang-tu (7115/2490/4648), author of an article, "A Research in the Indicative Phenomena of Plants -- Phytogeography Is One Essential Phase in Agricultural Services." (Peiping, Ti-li [Geography], No 6, 1963, pp 260-265)

CH'EN Ch'ung-chen (7115/1504/4394)

WANG Shan-t'ao (3076/1472/3447)

Both of the Institute of Agriculture, Hsiang-yang Special District, Hupeh Province; coauthors of a scientific note, "Preliminary Observations on the Life History and Habits of Acontia Graellsi Feisthamel." (Peiping, K'un-ch'ung Hsueh-pao [Acta Entomologica Sinica], Vol 13, No 1, Jan 64, pp 138-140)

CH'EN En-chiu (7115/1869/0036), author of an article, "Details on Climatical Conditions of the T'ien-shan Glacial Region." (Peiping, Ti-li [Geography], No 5, 1963, pp 193-200)

CHEN Hsiang-yen (7115/5046/3508), Nanking University; author of article, "On Periodic Solutions and Limit-Cycles of the Differential System," in English; received for publication on 1 March 1963. (Peiping, Scientia Sinica, Vol 13, No 1, Jan 64, pp 159-160)

CH'EN Jen-piao (7115/0088/1753)

HSIEH Wei-ying (6200/5508/5391)

Both of Biology Teaching and Research Section, Shanghai Second Medical College; coauthors of an article, "The Three Color Mark Method for the Cardiovascular System of Domestic Rabbit." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 5, Sep 63, pp 42-44)

CH'EN Kuei-ch'i (7115/2710/2759); author of a note, "A Summary of the Ideas Expressed at the Academic Conference on Construction Planning and Management." (Peiping, Chien-chu Hsueh-pao [Journal of Architecture], No 12, Dec 63, pp 16-17)

CH'EN T'ing-wei (7115/1694/0251), Institute of Soils and Fertilizers, Chinese Academy of Agricultural Sciences; author of an article, "The Secret of Biological Nitrogen Fixing." (Peiping, K'o-hsueh Ta-chung, No 1, Jan 64, pp 4-5)

CH'EN Yuan-ts'ung (7115/6678/5115)

NIU Ching-i (6873/4842/5030)

Both affiliated with the Institute of Biochemistry, Chinese Academy of Sciences, Shanghai; coauthors of article, "The Structure of Isomeric Mono-Carboxymethylhistidines," in English; received for publication on 14 October 1963. (Peiping, Scientia Sinica, Vol 13, No 1, Jan 64, pp 164-165)

CH'EN Yun-kang (3088/0336/6921), Institute of Plant Physiology, Chinese Academy of Sciences; author of an article, "The Process of the Transformation of Light Energy Into Chemical Energy Through Photosynthesis -- Photophosphorylation." (Peiping, Sheng-wu hsueh T'ung-pao [Biology Bulletin], No 4, Jul 63, pp 1-4)

CH'ENG Ch'un-shu (4453/4783/2873)

HSUEH Chin-shan (5641/6930/1472)

Both of Central Meteorological Bureau; coauthors of an article, "Radar Rain Detection." (Peiping, K'o-hsueh Ta-chung, No 9, Sep 63, pp 1-2)

CHENG Kuang-mei (6774/0337/5019), Department of Biology, Peking Normal College; author of an article, "Identification of Bird Nests and Bird Eggs in Hopeh Province." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 4, Jul 63, pp 9-13)

CH'ENG Sung-kao (4453/2646/7559), Microbiology Teaching and Research Section, Peking Second Medical College; author of an article, "Discussing Bacterial Cytology." (Peiping, Sheng-wu hsueh T'ung-pao [Biology Bulletin], No 4, Jul 63, pp 21-25)

CHOU Ch'ao-sheng (0719/3390/3932)

CH'I Tsung-hsiung (4359/1350/7160)

CHOU of the Institute of Hydraulic Engineering, Chekiang Provincial Department of Hydraulic Engineering and Electric Power, CH'I of the Academy of Surveying and Designing, Chekiang Provincial Department of Hydraulic Engineering and Electric Power; coauthors of a note, "Method of Selecting the Design-Frequency and the Typical Year of Season-Storage in Irrigation Projects." (Peiping, Shui-li Hsueh-pao [Chinese Journal of Hydraulic Engineering], No 5, Oct 63, pp 45-49)

CHOU Ming-chen (0719/2494/6966), Institute of Vertebrate Paleontology and Pateoanthropology, Chinese Academy of Sciences; author of an article, "Paleontology of Central Inner Mongolia." (Peiping, K'o-hsueh Ta-chung, No 9, Sep 63, pp 5-6)

CHOU P'ei-huang, Institute of Chemical Physics, Academy of Sciences USSR; coauthor with V. F. Tsepalov and V. Ya. Shlyapintokh of article, "Kinetics of the Coordination of Cumene and Ethylbenzene: I. Relation Between the Rate Constants of the Elementary Reactions," in Russian; received for publication on 21 December 1962. (Moscow, Akademiya Nauk SSSR, Zhurnal Fizicheskoy Khimii, Vol 38, No 1, Jan 64, pp 52-57)

CHOU Shu-lung (0719/6615/7893)

SU T'ien-ch'eng (5685/1131/2052)

K'ANG Tsai-pin (1660/0961/1755)

K'UNG Ch'u-hao (1313/2806/6275)

All of the Parasitology Teching and Research Section, Hupeh Medical College; coauthors of a note, "On Variations of the Sexual Glands of Schistosoma Japonicum." (Peiping, Tung-wu Hsueh-pao [Acta Zoological Sinica], Vol 15, No 4, Dec 63, pp 665-666)

CH'U Chung-shiang (2575/0112/3276)

WU Yu-shu (0702/3768/2885)

Both of Yunnan University; coauthors of an article, "General Research Conditions in Plant Ecology and Their Relationship to Agriculture." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Board], No 5, Sep 63, pp 1-6)

CHU Hai-ch'ing (2612/3189/3237), Department of Biology, Nan-k'ai University; author of a scientific note, "Preliminary Research on the Effect of Endoparasites on the Tissue and Organs of the Host." (Peiping, K'un-ch'ung Hsueh-pao [Acta Entomologica Sinica], Vol 13, No 1, Jan 64, pp 133-137)

CHU Lu-min (2612/0712/3046), Kiangsu Provincial Institute of Chemical Engineering; author of an article, "Foam Plastic -- Fluffed Cotton." (Peiping, K'o-hsueh Ta-chung, No 1, Jan 64, p 9)

CHU Ta-t'ung (2612/1129/0681)

FANG Ying (2455/5391)

Both of Peking Academy of Coal Mine Design; coauthors of a note, "Calculation of Ground Water Flow Into Complete Well in Spriped Nonhomogeneous Medium." (Peiping, Shui-li Hsueh-pao [Chinese Journal of Hydraulic Engineering], No 4, Aug 63, pp 55-59)

CH'U Wo-heng (0575/3087/1854), Shantung Provincial Academy of Agricultural Sciences; author of an article, "Soil -- Food for Plants." (Peiping, K'o-hsueh Ta-chung, No 11, Nov 63, pp 10-11)

HO Chen-wu (0735/2182/2976), Department of Biology, Peking Normal University; author of an article, "Hydra." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 5, Sep 63, pp 31-36)

HSIA Shu-fang (1115/0647/5364), Institute of Plant Physiology, Chinese Academy of Sciences, Shanghai; author of a scientific note, "Dark Reduction of Nitrate by Wheat Leaves." (Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao [Acta Biochemica et Biophysica Sinica], Vol 2, No 2, Jun 62, pp 131-133)

HSIAO Li, Institute of Biological and Medical Chemistry, Academy of Medical Sciences USSR; coauthor with N. A. Yudayev of article, "Phosphorylase Activity in Adrenal Cortex Zones and Its Alterations Under ACTH Influence," in Russian; received for publication on 4 February 1963. (Moscow, Voprosy Meditsinskoy Khimii, Vol 10, No 1, Jan-Feb 64, pp 20-24)

HSIEH Ch'eng-ti (6200/2110/6611), Honan Provincial Department of Hydraulic Engineering; author of a note, "A Suggestion for Reformation to the Kalinin's Method of Calculating the Runoff Contributing Curve." (Peiping, Shui-li Hsueh-pao [Chinese Journal of Hydraulic-Engineering], No 5, Oct 63, pp 50-55)

HSIEH Hsien-te (6200/0341/1795)

LIU Lai-pao (0491/0171/0202)

P'ENG Chih-chung (1756/1807/1813)

Coauthors of article, "On the Crystallography of Kurnakovite," in Russian; received for publication on 28 August 1963. (Peiping, Scientia Sinica, Vol 13, No 1, Jan 64, pp 168-170)

HSIEH Sheng-tsung (6200/4164/1350)

CH'IEN Lin (6929/3876)

Both of Institute of Hydraulic Engineering, Research Academy of Hydraulic Engineering and Hydroelectric Power; coauthors of a note, "Analysis of Water Pressures on an Inclined Dam Surface During Earthquake by Method of Small Parameter." (Peiping, Shui-li Hsueh-pao [Chinese Journal of Hydraulic Engineering], No 4, Aug 63, pp 51-55)

HSIEH Shou-tse (0673/1343/3419)

FU Shih-pai (0265/0013/0130)

Both of Wuhan Hydraulic Engineering and Electric Power College; coauthors of a note, "An Approximate Formula for Long-Term Storages of Reservoirs." (Peiping, Shui-li Hsueh-pao [Chinese Journal of Hydraulic Engineering], No 4, Aug 63, pp 46-50)

HSIUNG Kuang-hua (3574/0342/5478)

WANG Chieh (3769/2212)

KUAN Li-jen (4619/4539/0086)

All of the Institute of Parasitic Diseases, Chinese Academy of Medical Sciences; coauthors of a scientific note, "Two Species of Sandflies of Sub-Genus Paraphlebo-Tomus Found in Northwest China." (Peiping, K'un-ch'ung Hsueh-pao [Acta Entomologica Sinica], Vol 13, No 1, Jan 64, pp 141-144)

HSU Chan-chieh (1776/0193/2638)

JEN Mei-hsuan (0117/2734/6513)

Both of Institute of Biochemistry, Chinese Academy of Sciences, Shanghai; coauthors of a scientific note, "Some Preliminary Results of the Separation of Synthetic Peptides With Protecting Groups on Aluminum Oxide Column." (Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao [Acta Biochimica et Biophysica Sinica], Vol 2, No 2, Jun 62, pp 134-139)

HSUEH Chao-Jui (5641/0340/3843), author of an article, "The Nature and Genesis of Salt-Saturated Soil in the Littoral Zone of Huang-Hua District, Hopeh." (Peiping, Ti-li [Geography], No 6, 1963, pp 253-259)

HU Chi-ling (5170/4480/7881), Institute of Structures and Materials, Research Academy of Hydraulic Engineering and Hydroelectric Power; author of a note, "An Experimental Stress Analysis of Reinforced Concrete Spiral Casings." (Peiping, Shui-li Hsueh-pao [Chinese Journal of Hydraulic Engineering], No 5, Oct 63, pp 55-59)

HUANG Jun-hua (7806/3387/5478), author of an article, "Soil Temperatures of East China and Their Relations to the Soil Belts." (Peiping, Ti-li [Geography], No 6, 1963, pp 247-252)

JEN Hsing-chih (0117/1840/0037), attending physician of internal medicine at Peking T'ung-jen Hospital; age 35; native of Foochow, Fukien Province; graduated from Taiwan Medical University in 1955 and subsequently went to the US to study; studied heart and kidney diseases in five private New York hospitals over a period of 5 years; returned to mainland China late in 1963. (Canton, Chung-kuo Hsin-wen, 5 Feb 64, p 24)

KAO Yu-chu (7559/3558/3796), Plant Physiology Teaching and Research Section, Su-pei Agricultural College; author of an article,"The Chemistry and Capability of Plant Organella." (Peiping, Sheng-wu-sheuh T'ung-pao [Biology Bulletin], No 5, Sep 63, pp 7-13)

KUO Ching-hui (6753/2417/6540), author of an article, "Essential Research in Geography for Supporting Agricultural Production." (Peiping, Ti-li [Geography], No 6, 1963, pp 241-242, 259)

LAN Shu-ch'eng (5663/2579/2052)

WANG Ch'un (3769/5028)

Both of Department of Biology, Kirin Normal University; coauthors of an article, "A Method of Severing the Esophagus of Domestic Fowl and Experiments on False Feeding." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 4, Jul 63, pp 52-54)

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CHANG Kui-ch'in (1728/2710/3830)

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LI Wen-chou, Department of Physical Chemistry, Moscow State University; coauthor with A. N. Mal'tsev and N. I. Kobozev of article, "Activity of Adsorption Pt-Catalyzers Obtained in an Ultrasonic Field," in Russian; received for publication on 25 April 1963. (Moscow, Vestnik Moskovskogo Universiteta, Seriya II. Khimiya, No 1, Jan/Feb 64, pp 39-42)

LI Wen-chou, Moscow State University; coauthor with A. N. Maltsev and N. I. Kobozev of article, "Effect of Ultrasonics on the Genesis and Properties of Heterogenous Catalysts," in Russian; received for publication on 23 January 1963. (Moscow, Akademiya Nauk SSSR, Zhurnal Fizicheskoy Khimii, Vol 38, No 1, Jan 64, pp 80-88)

LIANG Tzu-ch'un, Biological-Soil Department, Moscow State University; coauthor with G. A. Kurella of article, "Dependence of the Resting Potential of a Single Muscle Fiber on the Osmotic Pressure of Medium (During the Reciprocal Change of Extracellular Concentrations of K^+ and Cl^-)," in Russian; received for publication on 25 December 1962. (Moscow, Akademiya Nauk SSSR, Biofizika, Vol 9, No 1, Jan/Feb 64, pp 78-85)

LIU Ch'ung-lo (0491/1504/2867), Institute of Zoology, Chinese Academy of Sciences; author of a note, "On Some Remarkable Attributes of Leis Axyridis From Lao-shan, Shantung (Coleoptera: Coccinellidae)." (Peiping, K'un-ch'ung Hsueh-pao [Acta Entomologica Sinica], Vol 12, No 5-6, Nov 63, pp 711-712)

LIU Po (0491/3134), Institute of Biology, Shansi University; author of an article, "The Wild Edible Mushroom of China." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 4, Jul 63, pp 5-8)

LO Lai-hsing (5012/0171/5281), author of an article, "Water and Soil Conservation and the Protection of the Loess Plateau of China." (Peiping, Ti-li [Geography], No 6, 1963, pp 243-246)

LU Man-ch'i (7120/2581/3823), Department of Biology, Hangchow University; author of an article, "How to Concentrate the Student's Attention and Develop Positive Thinking in Middle School Botany Classes." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 4, Jul 63, pp 39-42)

LUNG Ch'i-wei (7893/2601/1218)

HO Ch'ing (0149/7230)

Both affiliated with the Institute of Metal Research, Chinese Academy of Sciences, Shenyang; coauthors of article, "Temperature Dependence of Critical Shear Stress of Molybdenum Single Crystals," in English; received for publication on 25 September 1963. (Peiping, Scientia Sinica, Vol 13, No 1, Jan 64, pp 160-162).

MENG Hsu-wu (1322/4872/2976), Anhwei Agricultural College; author of a note, "Preliminary Observations on the Life History and Habits of Cephonodes Hylas Linne (Lepidoptera, Sphringidae)." (Peiping, K'un-ch'ung Hsueh-pao [Acta Entomologica Sinica], Vol 12, No 5-6, Nov 63, pp 713-714)

P'U Chia-p'eng (3450/1367/7720), Department of Animal Husbandry, Szechwan Agricultural College; author of an article, "A Tissue Preparation to Stimulate the Maturation of Domesticated Animals." (Peiping, K'o-hsueh Ta-chung, No 1, Jan 64, p 36)

SHIH Ch'ao-li (0670/6389/4409), Assistant Professor at the Peking Aeronautical College; author of an article, "Conquering the Moon," which reviews the work being done on moon programs in various countries. (Peiping, K'o-hsueh Ta-chung, No 10, Oct 63, pp 26-28)

SHIH Hsin-pai (0670/2450/2672), Department of Biology, Harbin Normal College; author of an article, "Application of Microtechniques in the Study of Protozoa." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 4, Jul 63, pp 45-48)

SUN Ching-mou (1327/2529/6180), Dairen Engineering College; author of a note, "Calculation of Beams on Elastic Foundation With Consideration of Nonhomogeneity." (Peiping, Shui-li Hsueh-pao [Chinese Journal of Hydraulic Engineering], No 4, Aug 63, pp 60-66)

TAI Hui-chuan (2071/1920/1227), Department of Biology, Kiangsi University; author of an article, "Arterial Ring." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 4, Jul 63, pp 26-35)

T'AO Tsung-chin (7118/1350/2516)

TAI Hai-liang (2071/3189/2733)

LI Ts'ai-hung (2621/4965/3163)

CH'IEN Li (6929/0500)

WANG Ju-t'ang (3769/1172/2768)

All of Institute of Biochemistry, Chinese Academy of Sciences, Shanghai; coauthors of a note, "A Simple Fraction Collector." (Peiping, Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao [Acta Biochimica et Biophysica Sinica], Vol 2, No 1, Mar 62, pp 75-78)

TOU Hang-shen (4535/7703/6500)

LIEN Kuang-hua (6647/0342/5478)

Coauthors of an article, "The Problems of Utilizing the Natural Geography and Resources of Aquatic Products in T'ai-hu (Lake)." (Peiping, Ti-li [Geography], No 5, 1963, pp 207-210)

TU Cheng-wen (2629/2973/2429)

TS'AI Wei-ch'i (5591/5588/3823)

Both of the Kiangsu Branch, Chinese Academy of Agricultural Sciences; coauthors of a scientific note, "Photoperiod Reaction of the Corn Borer in Kiangsu Province." (Peiping, K'un-ch'ung Hsueh-pao [Acta Entomologica Sinica], Vol 13, No 1, Jan 64, pp 129-132)

TU Yuan-ts'ai

CHIANG Shao-chun

CHANG Wen-yu

YEN Wu-kuang

All affiliated with the Joint Institute of Nuclear Research; coauthors with V. S. Vishnevskiy, B. I. Moroz, A. V. Nikitin, Yu. A. Troyan, and B. A. Shakhbazyan of article, "On the Possible Scheme of Production of Lambda-Hyperons Via Isobars in p-Interaction at 7-8 Be V Energy," in Russian; received for publication on 21 May 1963. (Moscow, Akademiya Nauk SSSR, Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 46, No 1, Jan 64, pp 232-241)

WANG Chung-fang (3769/0112/2455), Central Meteorological Bureau; author of an article, "Introduction of Crops Into New Areas." (Peiping, K'o-hsueh Ta-chung, No 11, Nov 63, pp 3-4)

WANG Jui-lin (3769/3843/7792), engineer, Chinese Academy of Agricultural Mechanization; contracted a nervous disorder in 1952 while studying in the US; [subsequently] returned to China; designed a new type of tractor in 1958 and, in 1962, undertook research in the field of soil mechanics, which was a relatively new science in China. (Canton, Chung-kuo Hsin-wen, 8 Feb 64, p 4)

WANG Ken-shih, coauthor with L. N. Komissarova, Vikt. i. Spitsyn, and Yu. P. Simanov of article, "Binary System Formed by Oxides of Lanthanum and Hafnium," in Russian; to be published in future issues. (Moscow, Akademiya Nauk SSSR, Zhurnal Neorganicheskoy Khimii, Vol 9, No 2, Feb 64, inside of back cover)

WANG Kuo-cheng (3076/0948/6927), chairman of internal medicine at Chi-shui-t'an Hospital in Peiping; died of an undisclosed illness on 6 January 1964. (Peiping, Pei-ching Jih-pao, 8 Jan 64, p 3)

WANG Kuo-hsiang, Institute of Chest Surgery, Academy of Medical Sciences USSR; author of article, "The Dilating Action of Ribonuclease on the Peripheral Blood Vessels," in Russian; this paper was read at the meeting of the Moscow Society of Patho-physiologists on 24 February 1961. (Moscow, Kardiologiya, Vol 4, No 1, Jan/Feb 64, pp 82-84).

WANG Sun-lun (3769/1327/0178)

CH'EN Chun-piao (7115/0193/2871)

SHEN Shan-chiung (3088/0810/3518)

All affiliated with the Laboratory of Microbiology, Institute of Plant Physiology, Chinese Academy of Sciences, Shanghai; coauthors of article, "The Enzymic Conversion of 3-Phosphoglyceraldehyde Into Methylglyoxal," in English; received for publication on 27 November 1963. (Peiping, Scientia Sinica, Vol 13, No 1, Jan 64, pp 167-168)

WANG Tsung-i (3769/1350/4400)

WANG Sung (3076/2646)

LU Ch'ang-k'un (7120/7022/0981)

CHANG Jung-tsu (1728/2837/4371)

Institute of Geography and Institute of Zoology, Chinese Academy of Sciences; coauthors of an article, "Classification, Distribution, and Utilization of China's Bovidae." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 5, Sep 63, pp 24-30)

WU Chung-hsien (0702/0112/6343), Peking Agricultural University; author of an article, "The Present Situation of Darwin's Theory-Continuation." (Peiping, Sheng-wu-shueh T'ung-pao [Biology Bulletin], No 5, Sep 63, pp 45-53)

WU Hao-yuan (0702/3185/3293), Department of Biophysics, China University of Science and Technology; author of an article, "Phytochrome." (Peiping, Shung-wu-hsueh T'ung-pao [Biology Bulletin], No 5, Sep 63)

WU Hsien-jung (0702/7359/2837), Peking Agricultural University; author of an article, "The Synthesis of Internal Sucrose in Higher Class Plants." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 5, Sep 63, pp 17-23)

WU Jung-jui, coauthor with Z. A. Rogovin, A. A. Konkin, and Yu. G. Kryazhev of article, "Method of Obtaining Ion-Exchange Fibers and Fabric," in Russian. (Moscow, Byulleten' Izobreteniy i Tovarnykh Znakov, No 3, Feb 64, p 40)

WU Wen-chun (0702/2429/0193), Institute of Mathematics, Chinese Academy of Sciences; author of article, "A Theorem on Immersion," in English; received for publication on 18 April 1963. (Peiping, Scientia Sinica, Vol 13, No 1, Jan 64, p 160)

YANG Tsan-hsi (2799/6363/3588)

CHANG Te-ho (1728/1795/7901)

Both affiliated with the Institute of Chemistry, Chinese Academy of Sciences; coauthors of article, "Investigation of Hydrogen Bond of Silanol With Octomethylcyclotetrasiloxen on Infrared Spectra," in Russian; received for publication on 16 October 1963. (Peiping, Scientia Sinica, Vol 13, No 1, Jan 64, pp 162-164)

YAO Lu-an, Institute of Electrochemistry, Academy of Sciences USSR; coauthor with Yu. B. Vasil'yev and V. S. Bagotskiy of article, "Electrochemical Processes in the System Quinone-Hydroquinone," in Russian; received for publication on 18 February 1963. (Moscow, Akademiya Nauk SSSR, Zhurnal Fizicheskoy Khimii, Vol 38, No 1, Jan 64, pp 205-207)

YAO P'eng-fei (1202/7720/7278), Shenyang Medical College; author of an article, "Animal Pigmentation." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 4, Jul 63, pp 19-20)

CHANG T'ung (1728/3392), author of an article, "Evaluation of Nonferrous Ore Deposit Phenomenon From Results of a Quantitative Survey of Metalliferous Ores." (Peiping, Chung-kuo Ti-chih [Chinese Geology], No 10, 1963, pp 26-31) (CONFIDENTIAL)

CHAO Yung-ch'uan (6392/3196/3123), author of an article, "Classification of Tin-Bearing Metalliferous Ore Veins According to Selectivity." (Peiping, Chung-kuo Ti-chih [Chinese Geology], No 11, 1963, pp 18-24) (CONFIDENTIAL)

CH'ENG Tzu-hsu (7115/1964/3563)

HU Min-lien (5170/2404/7792)

Both of Kuei-yang Chinese Traditional Medical Hospital; coauthors of an article, "Clinical Observations on Traditional Medical Treatment for 21 Cases of Heart Failure in Rheumatic Heart Disease." (Shanghai, Shang-hai Chung-i-yao Tsa-chih [Shanghai Journal of Chinese Traditional Medicine], Nov 63, pp 20-22) (CONFIDENTIAL)

CHIN Yao-hua (6855/5069/5478), author of an article, "Initial Knowledge of the Controlling Factors of Tectonic Minerogenesis in Certain Mercury-Bearing Ore Districts of Eastern Kweichow." (Peiping, Chung-kuo Ti-chih [Chinese Geology], No 10, 1963, pp 1-5) (CONFIDENTIAL)

CHOU Wen-te (0719/2429/1759), associate in Chinese Traditional Medicine, Workers' Hospital of Shanghai Electrical Industry; author of an article, "Seventy-Four Cases of Pinworms Treated With Chinese Traditional Remedies." (Shanghai, Shang-hai Chung-i-yao Tsa-chih [Shanghai Journal of Chinese Traditional Medicine], Nov 63, p 30) (CONFIDENTIAL)

CHU Hsiao-nan (2612/1420/0589), associate in Gynecology, Fifth Outpatients Clinic of the Shanghai Chinese Traditional Medical College; author of an article, "Observations on Effectiveness of Treatment in Ten Cases of Metropathia Hemorrhagica Gravis." (Shanghai, Shang-hai Chung-i-yao Tsa-chih [Shanghai Journal of Chinese Traditional Medicine], Nov 63, pp 31-32) (CONFIDENTIAL)

CHU Ju-kung (2612/3067/0501)

YEN Hua (0917/5478)

Both associates in Acupuncture-Moxibustion, Lung-hua Hospital of Shanghai Chinese Traditional Medical College; coauthors of an article, "Preliminary Observations on the Efficacy of 'Pyogenic Moxibustion' in the Treatment of 157 Cases of Asthma." (Shanghai, Shang-hai Chung-i-yao Tsa-chih [Shanghai Journal of Chinese Traditional Medicine], Nov 63, pp 33-34) (CONFIDENTIAL)

FEI Chen-p'ing (6316/2182/1627), Third Hospital of the Shanghai Bureau of Textile Industry; author of an article reporting satisfactory results in the use of an herbal preparation for 40 cases of diarrhea. (Shanghai, Shang-hai Chung-i-yao Tsa-chih [Shanghai Journal of Chinese Traditional Medicine], Nov 63, p 16) (CONFIDENTIAL)

HUANG Nai-tse (7806/0035/3419), Mukden Pharmaceutical College; author of an article, "Methods of Determining the Amount of Alcohol in Medicine Compounds." (Peiping, Yao-hsueh T'ung-pao [Pharmacology Bulletin], Vol 9, No 3, Jun 63, pp 104-108) (CONFIDENTIAL)

LI T'ung (2746/1749), author of an article, "Problems of Genetic Classification of Wolframite." (Peiping, Chung-kuo Ti-chih [Chinese Geology], No 10, 1963, pp 6-13) (CONFIDENTIAL)

LIANG Ying-pin (2733/4481/1755)

WANG Li-fang (3769/5461/5364)

Both of Drug Determination Laboratory, Second Hospital attached to Sian Medical College; coauthors of an article, New Ways To Prepare Iodine-Chloride Solutions and Tetra-Chloro-Potassium Iodide." (Peiping, Yao-hsueh T'ung-pao [Pharmacology Vulletin], Vol 9, No 3, Jun 63, pp 117-119) (CONFIDENTIAL)

MIAO Ho-feng (5379/4421/0023), author of an article, "A Few New Revolutionary and Advanced Engineering Techniques in Drilling and Exploration." (Peiping, Chung-kuo Ti-chih [Chinese Geology], No 10, 1963, pp 14-17) (CONFIDENTIAL)

SHAO Ch'ang-jung (0605/7022/2837)

LIN Chung-hsing (2651/6945/7449)

Both of the Lung-hua Hospital, of Shanghai Traditional Medical College; coauthors of an article, "Clinical Analysis of 50 Cases of Bronchial Asthma." (Shanghai, Shang-hai Chung-i-yao Tsa-chih [Shanghai Chinese Traditional Medical Journal], Nov 63, pp 13-16) (CONFIDENTIAL)

TS'AO Yuan-ch'ing (2580/0997/2532), author of an article, "Exploring for Small to Medium-Sized Skarns Deposits in Certain Copper Ores." (Peiping, Chung-kuo Tu-i-chih [Chinese Geology], No 11, 1963, pp 11-17) (CONFIDENTIAL)

WANG Chen-kang (3769/2182/4854), Pharmacology Teaching and Research Section, China Medical University, Peiping; author of an article, "Introduction to Anticancer Drugs." (Peiping, Yao-hsueh T'ung-pao [Pharmacology Bulletin], Vol 9, No 3, Jun 63, pp 108-116) (CONFIDENTIAL)

WANG Cheng-kung (3769/2973/0361)

LIN Yun ch'ing (2651/4596/3237)

TING Chung-an (0002/0112/1344)

WU Wen-chuan (0702/2429/1227)

SHEN Li-jen (3088/4539/0086)

All of Second People's Hospital of Shanghai; coauthors of an article, "On Traditional Diagnosis and Treatment of Massive Hemoptysis in Tuberculosis (With Case Reports)." (Shanghai, Shang-hai Chung-i-yao Tsa-chih [Shanghai Journal of Chinese Traditional Medicine], Nov 63, pp 17-19) (CONFIDENTIAL)

WANG Jui (3769/6904), author of an article, "A Few Hydrogeological Investigations on Mineral Deposits of a Certain Karst Depression in South China." (Peiping, Chung-kuo Ti-chih [Chinese Geology], No 11, 1963, pp 1-9) (CONFIDENTIAL)

YAO Fang-yu (1202/5364/5588), author of an article, "Report of Experiences in the Application of Chinese Traditional Medicine in the Treatment of Spontaneous Winking Spasm." (Shanghai, Shang-hai Chung-i-yao Tsa-chih [Shanghai Journal of Chinese Traditional Medicine], Nov 63, pp 35-36) (CONFIDENTIAL)

YAO P'ei-hui (1202/1014/1979)

CHANG Chi-min (1728/3444/3046)

Coauthors of an article, "Applied Methods of Conducting General Geological Survey and Exploration of Mineral Deposit Areas." (Peiping, Chung-kuo Ti-chih [Chinese Geology], No 10, 1963, pp 18-25) (CONFIDENTIAL)

YEN Te-hsin (7346/1795/7451), Shanghai Railway Medical College Hospital; author of an article, "Diagnosis and Treatment of Leukemia in Chinese Traditional Medical Practice." (Shanghai, Shang-hai Chung-i-yao Tsa-chih [Shanghai Journal of Chinese Traditional Medicine], Nov 63, pp 26-29) (CONFIDENTIAL)

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Central Intelligence Agency

Washington, D.C. 20505

7 September 2004

Ms. Roberta Schoen
Deputy Director for Operations
Defense Technical Information Center
7725 John J. Kingman Road
Suite 0944
Ft. Belvoir, VA 22060

Dear Ms. Schoen:

In February of this year, DTIC provided the CIA Declassification Center with a referral list of CIA documents held in the DTIC library. This referral was a follow on to the list of National Intelligence Surveys provided earlier in the year.

We have completed a declassification review of the "Non-NIS" referral list and include the results of that review as Enclosure 1. Of the 220 documents identified in our declassification database, only three are classified. These three are in the Release in Part category and may be released to the public once specified portions of the documents are removed. Sanitization instructions for these documents are included with Enclosure 1.

In addition to the documents addressed in Enclosure 1, 14 other documents were unable to be identified. DTIC then provided the CDC with hard copies of these documents in April 2004 for declassification review. The results of this review are provided as Enclosure 2.

We at CIA greatly appreciate your cooperation in this matter. Should you have any questions concerning this letter and for coordination of any further developments, please contact Donald Black of this office at (703) 613-1415.

Sincerely,

Nancy Jo Hackett for

Sergio N. Alcivar
Chief, CIA Declassification Center,
Declassification Review and Referral
Branch

Enclosures:

1. Declassification Review of CIA Documents at DTIC (with sanitization instructions for 3 documents)
2. Declassification Status of CIA Documents (hard copy) Referred by DTIC (with review processing sheets for each document)

Processing of OGA-Held CIA Documents

The following CIA documents located at DTIC were reviewed by CIA and declassification guidance has been provided.

OGA Doc ID	Job Num	Box	Fldr	Doc	Doc ID	Document Title	Pub Date	Pages	Decision	Proc Date
AD0343932	78-03117A	213	1	18	5117	Scientific Information Report Chinese Science (34)	10/22/1963	89	Approved For Release	3/29/2004
AD0344702	78-03117A	214	1	21	5149	Scientific Information Report Chinese Science (35)	11/4/1963	133	Approved For Release	3/29/2004
AD0344965	78-03117A	215	1	4	5163	Scientific Information Report Chinese Science (36)	11/7/1963	133	Approved For Release	3/29/2004
AD0345229	78-03117A	215	1	23	5182	Scientific Information Report Chinese Science (37)	11/18/1963	179	Approved For Release	3/29/2004
AD0345750	78-03117A	216	1	20	5209	Scientific Information Report Chinese Science (38)	12/11/1963	174	Approved For Release	3/29/2004
AD0344419	78-03117A	217	1	20	5241	Scientific Information Report Chinese Science (39)	12/27/1963	75	Approved For Release	3/29/2004
AD0346493	78-03117A	218	1	21	5277	Scientific Information Report Chinese Science (40)	1/10/1964	115	Approved For Release	3/29/2004
AD0346725	78-03117A	219	1	27	5320	Scientific Information Report Chinese Science (41)	1/27/1964	78	Approved For Release	3/29/2004
AD0347051	78-03117A	220	1	25	5359	Scientific Information Report Chinese Science (42)	2/6/1964	78	Approved For Release	3/29/2004
AD0347849	78-03117A	221	1	39	5407	Scientific Information Report Chinese Science (43)	3/2/1964	174	Approved For Release	3/29/2004
AD0347929	78-03117A	222	1	25	5438	Scientific Information Report Chinese Science (44)	3/5/1964	104	Approved For Release	3/29/2004
AD0348352	78-03117A	223	1	20	5479	Scientific Information Report Chinese Science (45)	3/20/1964	117	Approved For Release	3/29/2004
AD0349491	78-03117A	225	1	18	5560	Scientific Information Report Chinese Science (46)	4/24/1964	118	Approved For Release	3/29/2004
AD0349657	78-03117A	225	1	34	5581	Scientific Information Report Chinese Science (47)	5/4/1964	98	Approved For Release	3/29/2004
AD0332751	78-03117A	183	1	29	3940	Scientific Information Report Electronics And Engineering (22)	10/19/1962	68	Approved For Release	3/29/2004
AD0333146	78-03117A	186	1	20	4041	Scientific Information Report Electronics And Engineering (23)	11/23/1962	73	Approved For Release	3/29/2004
AD0334103	78-03117A	188	1	37	4136	Scientific Information Report Electronics And Engineering (24)	12/20/1962	62	Approved For Release	3/29/2004
AD0334236	78-03117A	190	1	40	4217	Scientific Information Report Electronics And Engineering (25)	1/22/1963	48	Approved For Release	3/29/2004
AD0334769	78-03117A	193	1	39	4339	Scientific Information Report Electronics And Engineering (26)	2/28/1963	68	Approved For Release	3/29/2004
AD0335480	78-03117A	196	1	17	4436	Scientific Information Report Electronics And Engineering (27)	3/21/1963	95	Approved For Release	3/29/2004
AD0336306	78-03117A	199	1	2	4538	Scientific Information Report Electronics And Engineering (28)	4/25/1963	69	Approved For Release	3/29/2004
AD0332433	78-03117A	183	1	35	3946	Scientific Information Report Organization And Administration Of Soviet Science (5)	10/22/1962	60	Approved For Release	3/29/2004